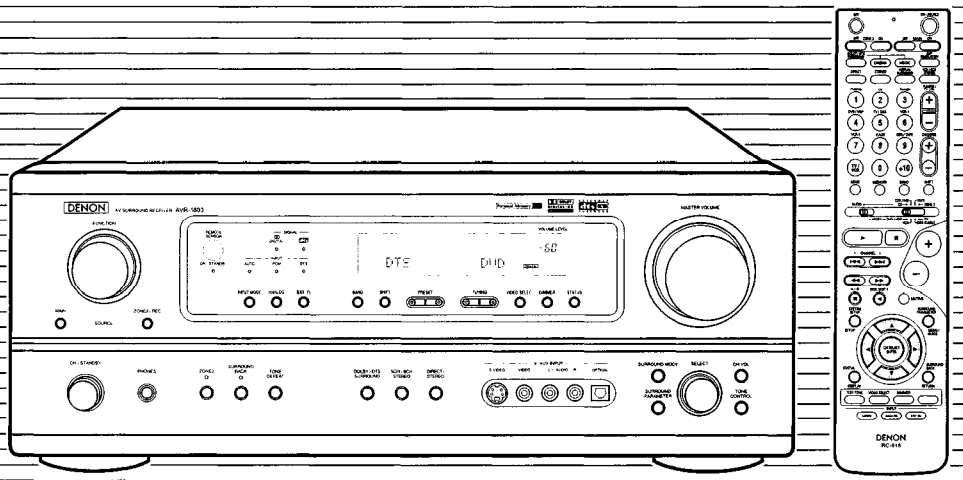
DENON

AV SURROUND RECEIVER
RÉCEPTEUR AUDIO-VIDÉO

AVR-1803/883

OPERATING INSTRUCTIONS
MODE D'EMPLOI



FOR ENGLISH READERS	PAGE 2 ~	PAGE 64, 126 ~ 130
POUR LES LECTEURS FRANCAIS	PAGE 2, 65 ~	PAGE 130

- **We greatly appreciate your purchase of the AVR-1803/883.**
- **To be sure you take maximum advantage of all the features the AVR-1803/883 has to offer, read these instructions carefully and use the set properly. Be sure to keep this manual for future reference should any questions or problems arise.**

- **Nous vous remercions de l'achat de l'AVR-1803/883.**
- **Pour être sûr de profiter au maximum de toutes les caractéristiques qu'a à offrir l'AVR-1803/883, lire avec soin ces instructions et bien utiliser l'appareil. Toujours conserver ce mode d'emploi pour s'y référer ultérieurement en cas de question ou de problème.**

■ SAFETY PRECAUTIONS

WARNING:
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

- **FOR CANADA MODEL ONLY**

CAUTION

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

- **POUR LES MODELE CANADIEN UNIQUEMENT**

ATTENTION

POUR ÉVITER LES CHOCS ÉLECTRIQUES, INTERODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU' AU FOND.

This device complies with Part 15 of the FCC Rules Operation is subject to the following two conditions (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

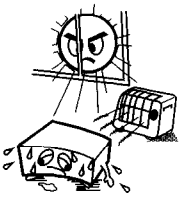
This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada

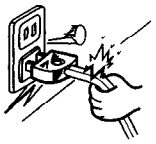
"SERIAL NO. _____
PLEASE RECORD UNIT SERIAL NUMBER ATTACHED TO THE REAR OF THE CABINET FOR FUTURE REFERENCE"

"NO. DE SERIE _____
PRIERE DE NOTER LE NUMERO DE SERIE DE L'APPAREIL INSCRIT A L'ARRIERE DU COFFRET DE FAÇON A POUVOIR LE CONSULTER EN CAS DE PROBLEME."

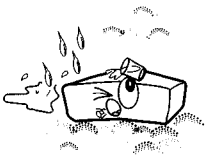
■ NOTE ON USE / OBSERVATIONS RELATIVES A L'UTILISATION



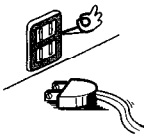
- Avoid high temperatures
  Allow for sufficient heat dispersion when installed on a rack.
- Eviter des températures élevées
  Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une étagère.



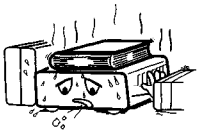
- Handle the power cord carefully.
  Hold the plug when unplugging the cord.
- Manipuler le cordon d'alimentation avec précaution.
  Tenir la prise lors du débranchement du cordon.



- Keep the set free from moisture, water, and dust.
- Protéger l'appareil contre l'humidité, l'eau et lapoussière

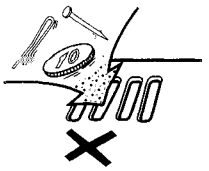


- Unplug the power cord when not using the set for long periods of time
- Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant de longues périodes



* (For sets with ventilation holes)

- Do not obstruct the ventilation holes.
- Ne pas obstruer les trous d'aération



- Do not let foreign objects in the set
- Ne pas laisser des objets étrangers dans l'appareil

- Do not let insecticides, benzene, and thinner come in contact with the set.
- Ne pas mettre en contact des insecticides, du benzène et un diluant avec l'appareil.

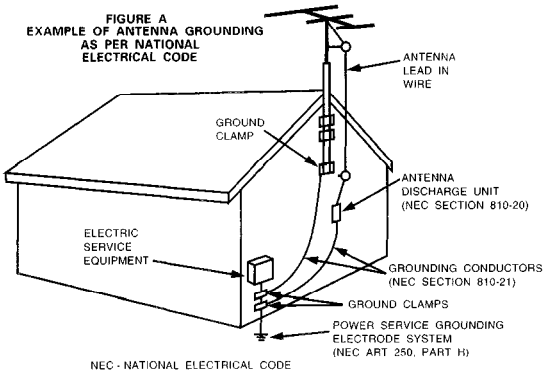
- Never disassemble or modify the set in any way
- Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre

SAFETY INSTRUCTIONS

1. Read Instructions – All the safety and operating instructions should be read before the product is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the product and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Cleaning – Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners.
6. Attachments – Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Water and Moisture – Do not use this product near water – for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
8. Accessories – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
9. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

10. Ventilation – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
11. Power Sources – This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
12. Grounding or Polarization – This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

FIGURE A
EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE



NEC - NATIONAL ELECTRICAL CODE

13. Power-Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
15. Outdoor Antenna Grounding – If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.
16. Lightning – For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
17. Power Lines – An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
18. Overloading – Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
19. Object and Liquid Entry – Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
20. Servicing – Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
21. Damage Requiring Service – Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    a) When the power-supply cord or plug is damaged,
    b) If liquid has been spilled, or objects have fallen into the product,
    c) If the product has been exposed to rain or water,
    d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation,
    e) If the product has been dropped or damaged in any way, and
    f) When the product exhibits a distinct change in performance – this indicates a need for service.
22. Replacement Parts – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
23. Safety Check – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
24. Wall or Ceiling Mounting – The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
25. Heat – The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

■ INTRODUCTION

Thank you for choosing the DENON AVR-1803/883 Digital Surround A / V receiver. This remarkable component has been engineered to provide superb surround sound listening with AV theater sources such as DVD, as well as providing outstanding high fidelity reproduction of your favorite music sources.
As this product is provided with an immense array of features, we recommend that before you begin hookup and operation that you review the contents of this manual before proceeding.

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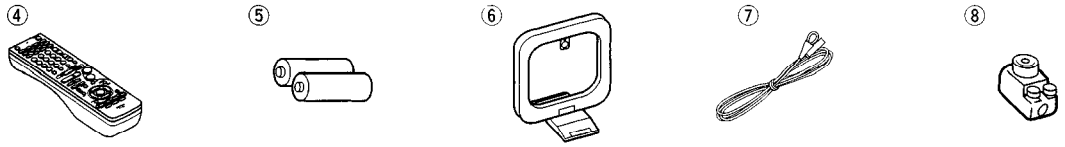
■ ACCESSORIES

Check that the following parts are included in addition to the main unit:

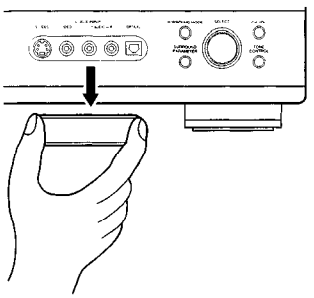
① Operating instructions 1
② Warranty (for North America model only) 1
③ Service station list 1
④ Remote control unit (RC-916) 1
⑤ R6P/AA batteries 2
⑥ AM loop antenna 1
⑦ FM indoor antenna 1
⑧ FM antenna adapter 1



1 BEFORE USING

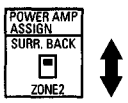
Pay attention to the following before using this unit:

- **Moving the set**
  To prevent short circuits or damaged wires in the connection cords, always unplug the power cord and disconnect the connection cords between all other audio components when moving the set.
- **Before turning the power switch on**
  Check once again that all connections are proper and that there are not problems with the connection cords. Always set the power switch to the standby position before connecting and disconnecting connection cords.
- **Store this instructions in a safe place.**
  After reading, store this instructions along with the warranty in a safe place.
- **Note that the illustrations in this instructions may differ from the actual set for explanation purposes.**
- **V. AUX jacks**
  The AVR-1803/883's front panel is equipped with a V. AUX jacks. Remove the cap covering the jacks when you want to use it.



Setting the power amplifier assignment:

- Make this setting to switch the power amplifier for the surround back channel to zone2.



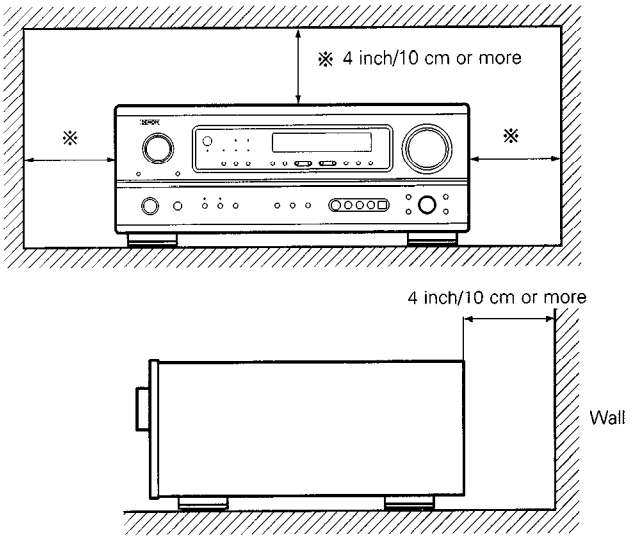
※ Disconnect the power plug and set the POWER AMP ASSIGN switch on the rear to the desired position. The plug in the AC main again.

2 CAUTIONS ON INSTALLATION

Noise or disturbance of the picture may be generated if this unit or any other electronic equipment using microprocessors is used near a tuner or TV.
If this happens, take the following steps:

- Install this unit as far as possible from the tuner or TV.
- Set the antenna wires from the tuner or TV away from this unit's power cord and input/output connection cords.
- Noise or disturbance tends to occur particularly when using indoor antennas or 300 Ω/ohms feeder wires. **We recommend using outdoor antennas and 75 Ω/ohms coaxial cables.**

For heat dispersal, leave at least 10 cm of space between the top, back and sides of this unit and the wall or other components.



3 CAUTIONS ON HANDLING

- **Switching the input function when input jacks are not connected**
  A clicking noise may be produced if the input function is switched when nothing is connected to the input jacks. If this happens, either turn down the MASTER VOLUME control or connect components to the input jacks.

- **Muting of PRE OUT jacks, HEADPHONE jack and SPEAKER terminals**
  The PRE OUT jack, HEADPHONE jack and SPEAKER terminals include a muting circuit. Because of this, the output signals are greatly reduced for several seconds after the power switch is turned on or input function, surround mode or any other-set-up is changed. If the volume is turned up during this time, the output will be very high after the muting circuit stops functioning. Always wait until the muting circuit turns off before adjusting the volume.

- **Whenever the power switch is in the STANDBY state, the apparatus is still connected on AC line voltage.**
  Please be sure to unplug the cord when you leave home for, say, a vacation.

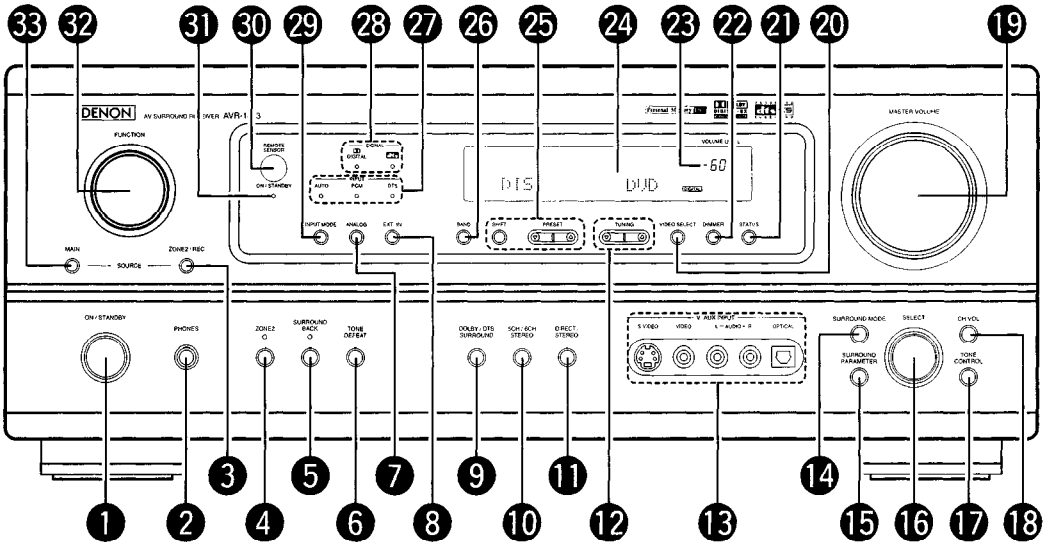
4 FEATURES

1. **Multi Zone Music Entertainment System**
   Multi Source Function:
   This unit's Multi Source function lets you select different audio sources for listening Different sources can thus be enjoyed in the main room (MAIN) and the subroom (ZONE 2) simultaneously.
2. **Dolby Pro Logic II decoder**
   Dolby Pro Logic II is a new format for playing multichannel audio signals that offers improvements over conventional Dolby Pro Logic. It can be used to decode not only sources recorded in Dolby Surround but also regular stereo sources into five channels (front left/right, center and surround left/right). In addition, various parameters can be set according to the type of source and the contents, so you can adjust the sound field with greater precision.
3. **Dolby Digital**
   Using advanced digital processing algorithms, Dolby Digital provides up to 5.1 channels of wide-range, high fidelity surround sound. Dolby Digital is the default digital audio delivery system for North American DVD and DTV.
4. **DTS (Digital Theater Systems)**
   DTS provides up to 5.1 channels of wide-range, high fidelity surround sound, from sources such as laser disc, DVD and specially-encoded music discs.
5. **DTS-ES Extended Surround and DTS Neo:6**
   The AVR-1803/883 is compatible with DTS-ES Extended Surround, a new multi-channel format developed by Digital Theater Systems Inc.
   The AVR-1803/883 is also compatible with DTS Neo:6, a surround mode allowing 6.1-channel playback of regular stereo sources.
6. **Component Video Switching**
   In addition to composite video and "S" video switching, the AVR-1803/883 provides 2 sets of component video (Y, PB/CB, PR/CR) inputs assignable, and one set of component video outputs to the television, for superior picture quality.
7. **Auto Surround Mode**
   This function stores the surround mode last used for an input signal in the memory and automatically sets that surround mode the next time that signal is input.

5 PART NAMES AND FUNCTIONS

Front Panel

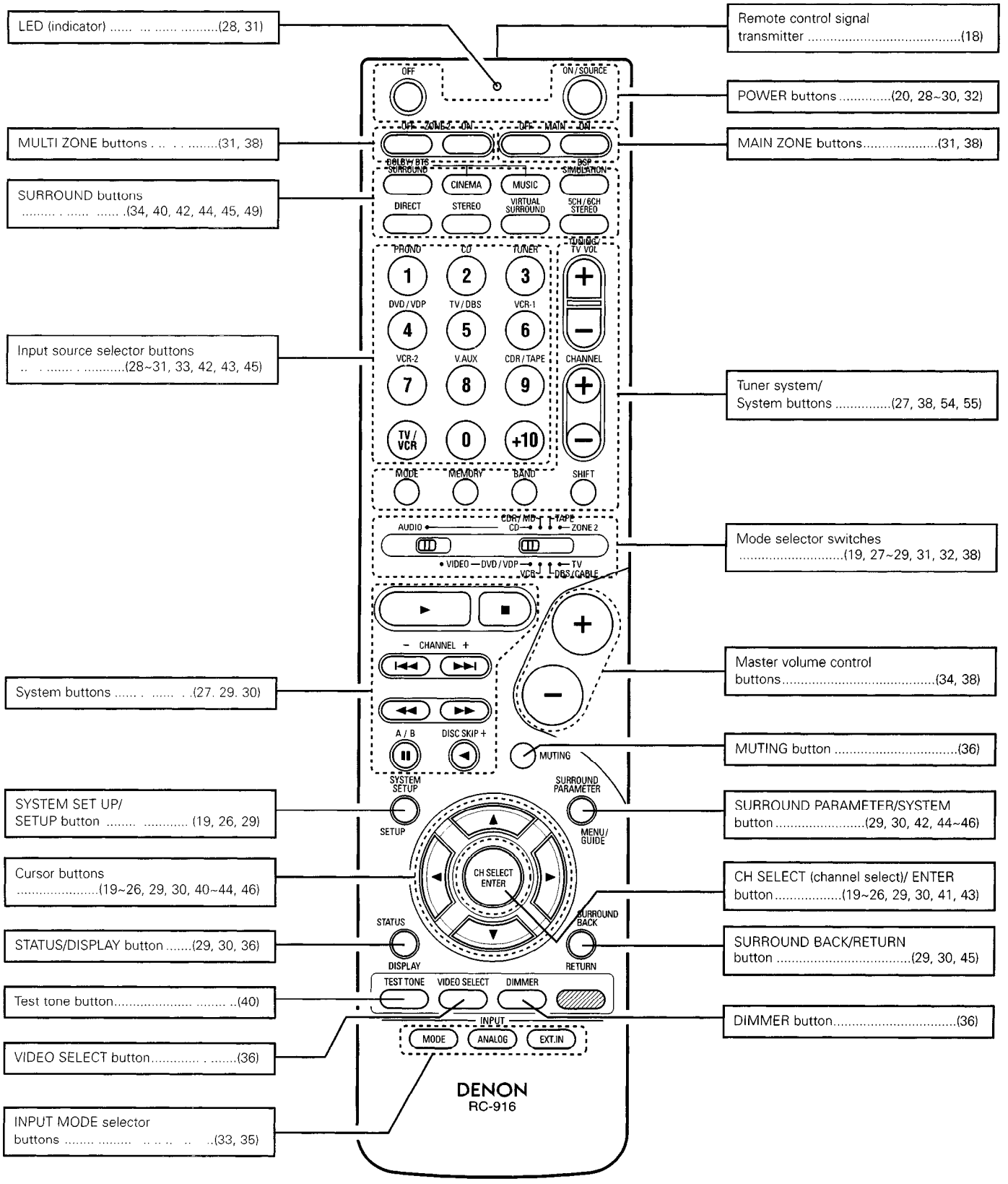
- For details on the functions of these parts, refer to the pages given in parentheses ( ).



1. Power ON/STANDBY switch ....(20, 32, 53)
2. Headphones jack (PHONES) ....(36)
3. ZONE2/REC button ....(37)
4. ZONE2 button ....(37, 39, 56)
5. SURROUND BACK button ....(39, 45, 56)
6. TONE DEFEAT button ....(35)
7. ANALOG button ....(33, 35)
8. EXT. IN button ....(33, 35)
9. DOLBY/DTS SURROUND button ....(40, 42, 44, 45)
10. 5CH/6CH STEREO button ....(48)
11. DIRECT/STEREO button ....(48)
12. TUNING UP/DOWN buttons ....(54)
13. V. AUX input jacks ....(4, 14)
14. SURROUND MODE button ....(34, 45, 51)
15. SURROUND PARAMETER button ....(42, 44, 45, 49, 51)
16. SELECT knob ....(35, 41, 42, 44, 51)
17. TONE CONTROL button ....(35)
18. CH VOL button ....(41)
19. MASTER VOLUME control ....(34)
20. VIDEO SELECT button ....(36)
21. STATUS button ....(36)
22. DIMMER button ....(36)
23. Master Volume indicator ....(34)
24. Display
25. Preset station select buttons ....(53, 55)
26. BAND button ....(54)
27. INPUT MODE indicator ....(34)
28. SIGNAL indicator ....(34)
29. INPUT MODE button ....(33, 35, 45)
30. Remote control sensor (REMOTE SENSOR) ....(18)
31. Power operation indicator ....(32)
32. FUNCTION knob ....(33, 37, 42, 43, 45, 54)
33. MAIN button ....(33)

Remote control unit

- For details on the functions of these parts, refer to the pages given in parentheses ( ).



NOTE:
- The shaded buttons do not function with the AVR-1803/883. (Nothing happens when they are pressed.)

6 READ THIS FIRST

This AV Surround Receiver must be setup before use. Following these steps.

Step 1 **(page 8 to 17)**

Choose the best location to setup the Speakers and connecting the components.

Step 2 **(page 18)**

Next, insert the batteries into the remote control unit.

Step 3 **(page 19 to 26)**

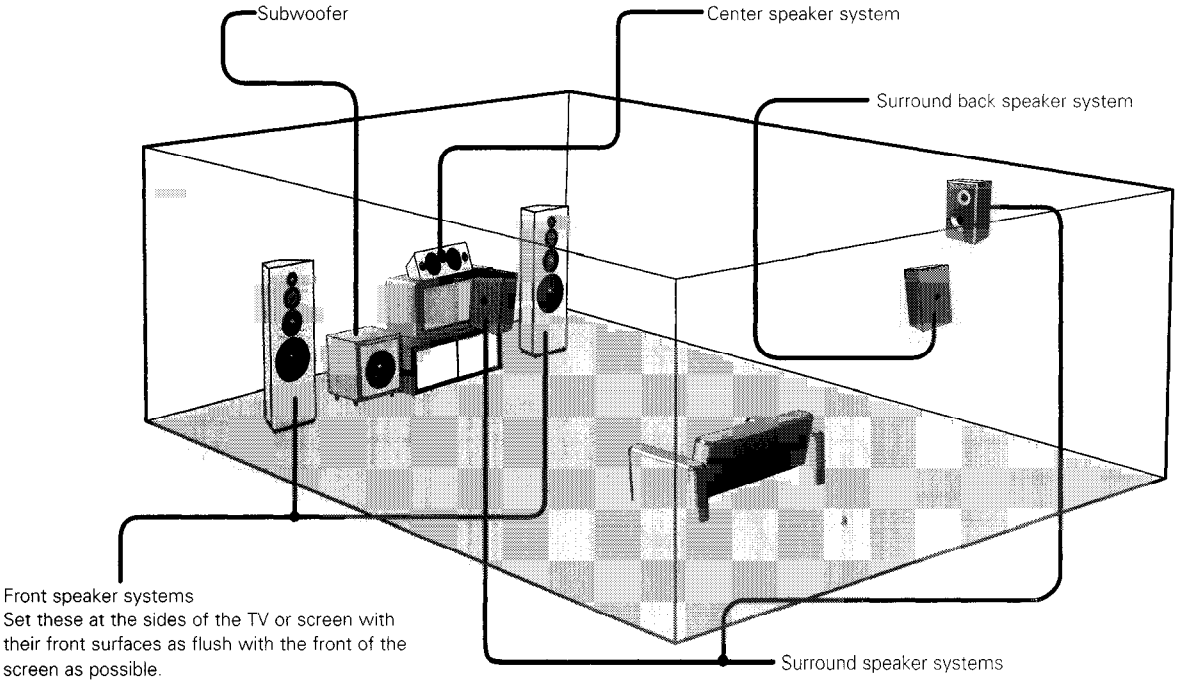
Finally, setting up the system.

7 SETTING UP THE SPEAKER SYSTEMS

■ Speaker system layout

Basic system layout

- The following is an example of the basic layout for a system consisting of six speaker systems and a television monitor:

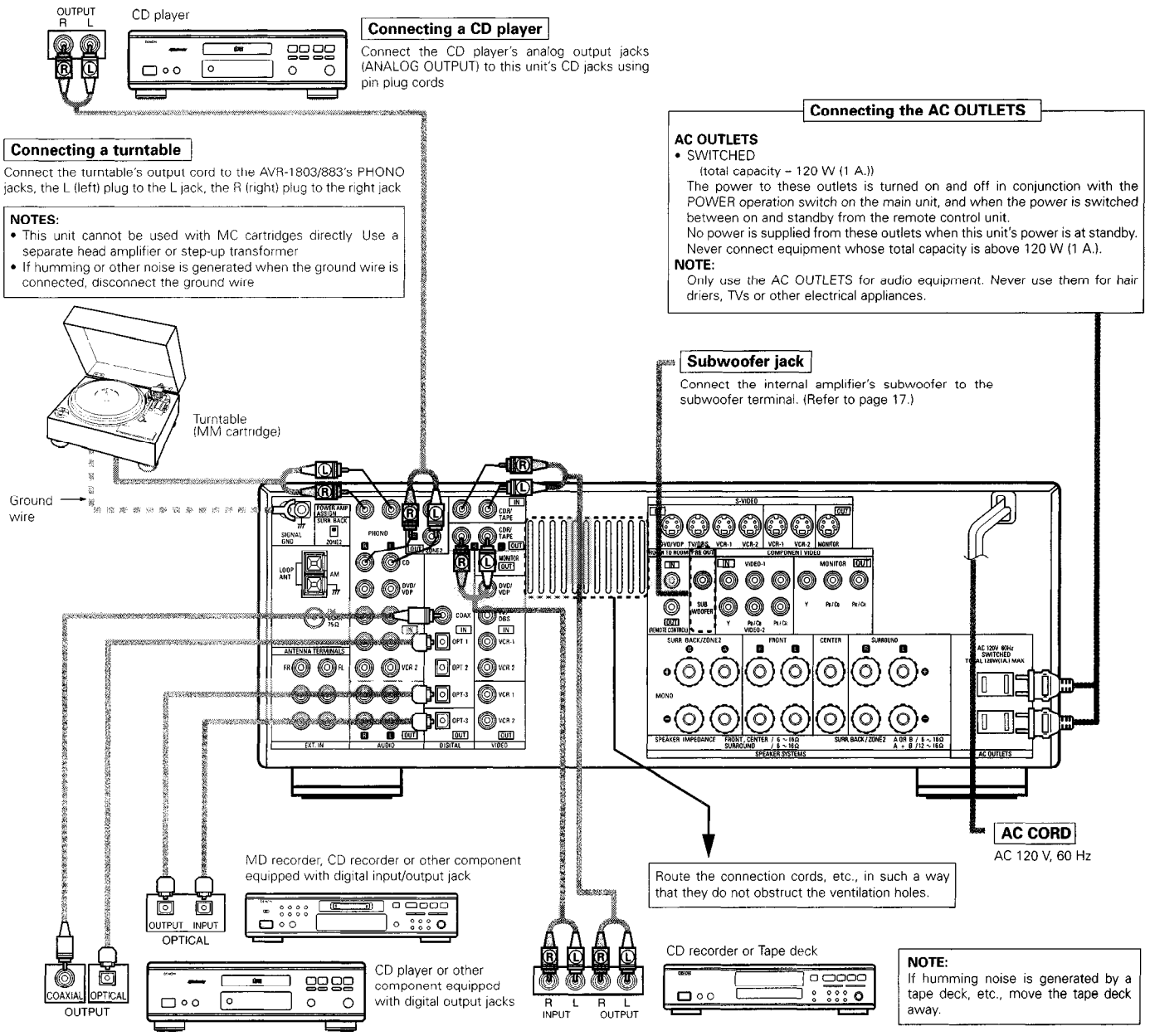


8 CONNECTIONS

- Do not plug in the AC cord until all connections have been completed.
- Be sure to connect the left and right channels properly (left with left, right with right).
- Insert the plugs securely. Incomplete connections will result in the generation of noise.
- **Use the AC OUTLETS for audio equipment only. Do not use them for hair driers, etc.**
- Note that binding pin plug cords together with AC cords or placing them near a power transformer will result in generating hum or other noise.
- Noise or humming may be generated if a connected audio equipment is used independently without turning the power of this unit on. If this happens, turn on the power of the this unit.

Connecting the audio components

- When making connections, also refer to the operating instructions of the other components.
  The power to these outlets is turned on and off when the power is switched between on and standby from the remote control unit or power switch.



Connecting a CD player

Connect the CD player's analog output jacks (ANALOG OUTPUT) to this unit's CD jacks using pin plug cords

Connecting a turntable

Connect the turntable's output cord to the AVR-1803/883's PHONO jacks, the L (left) plug to the L jack, the R (right) plug to the right jack

NOTES:
- This unit cannot be used with MC cartridges directly. Use a separate head amplifier or step-up transformer
- If humming or other noise is generated when the ground wire is connected, disconnect the ground wire

Connecting the AC OUTLETS

AC OUTLETS
- SWITCHED
  (total capacity – 120 W (1 A.))

The power to these outlets is turned on and off in conjunction with the POWER operation switch on the main unit, and when the power is switched between on and standby from the remote control unit.
No power is supplied from these outlets when this unit's power is at standby.
Never connect equipment whose total capacity is above 120 W (1 A.).

NOTE:
Only use the AC OUTLETS for audio equipment. Never use them for hair driers, TVs or other electrical appliances.

Subwoofer jack

Connect the internal amplifier's subwoofer to the subwoofer terminal. (Refer to page 17.)

Route the connection cords, etc., in such a way that they do not obstruct the ventilation holes.

NOTE:
If humming noise is generated by a tape deck, etc., move the tape deck away.

Connecting the DIGITAL jacks

Use these for connections to audio (video) equipment with digital output. Refer to page 24 for instructions on setting this terminal

NOTES:
- Use 75 Ω/ohms cable pin cords for coaxial connections
- Use optical cables for optical connections, removing the cap before connecting

Connecting a tape deck

Connections for recording:
Connect the tape deck's recording input jacks (LINE IN or REC) to this unit's tape recording (CDR/TAPE OUT) jacks using pin plug cords.

Connections for playback:
Connect the tape deck's playback output jacks (LINE OUT or PB) to this unit's tape playback (CDR/TAPE IN) jacks using pin plug cords.

Connecting video components

- To connect the video signal, connect using a 75 Ω/ohms video signal cable cord. Using an improper cable can result in a drop in video quality.
- When making connections, also refer to the operating instructions of the other components.

TV or DBS tuner

Connecting a TV/DBS tuner

TV/DBS

- Connect the TV's or DBS tuner's video output jack (VIDEO OUTPUT) to the VIDEO (yellow) TV/DBS IN jack using a 75 Ω/ohms video coaxial pin plug cord.
- Connect the TV's or DBS tuner's audio output jacks (AUDIO OUTPUT) to the AUDIO TV/DBS IN jacks using pin plug cords.

Monitor TV

DVD player or video disc player (VDP), etc

Connecting a Monitor TV

MONITOR OUT

- Connect the TV's video input jack (VIDEO INPUT) to the VIDEO MONITOR OUT jack using a 75 Ω/ohms video coaxial pin plug cord.

Connecting a DVD player or a video disc player (VDP)

DVD

- Connect the video disc player's video output jack (VIDEO OUTPUT) to the VIDEO (yellow) DVD/VDP IN jack using a 75 Ω/ohms video coaxial pin plug cord
- Connect the video disc player's analog audio output jacks (ANALOG AUDIO OUTPUT) to the AUDIO DVD/VDP IN jacks using pin plug cords.
- It is also possible to connect a video disc player, DVD player, video camcorder, game machine, etc., to the VCR-2 jacks.

Note on connecting the digital input jacks

- Only audio signals are input to the digital input jacks. For details, see page 9, 24.

Video deck 2

Video deck 1

Connecting a video decks

- There are two sets of video deck (VCR) jacks, so two video decks can be connected for simultaneous recording or video copying

Video input/output connections:

- Connect the video deck's video output jack (VIDEO OUT) to the VIDEO (yellow) VCR-1 IN jack, and the video deck's video input jack (VIDEO IN) to the VIDEO (yellow) VCR-1 OUT jack using 75 Ω/ohms video coaxial pin plug cords

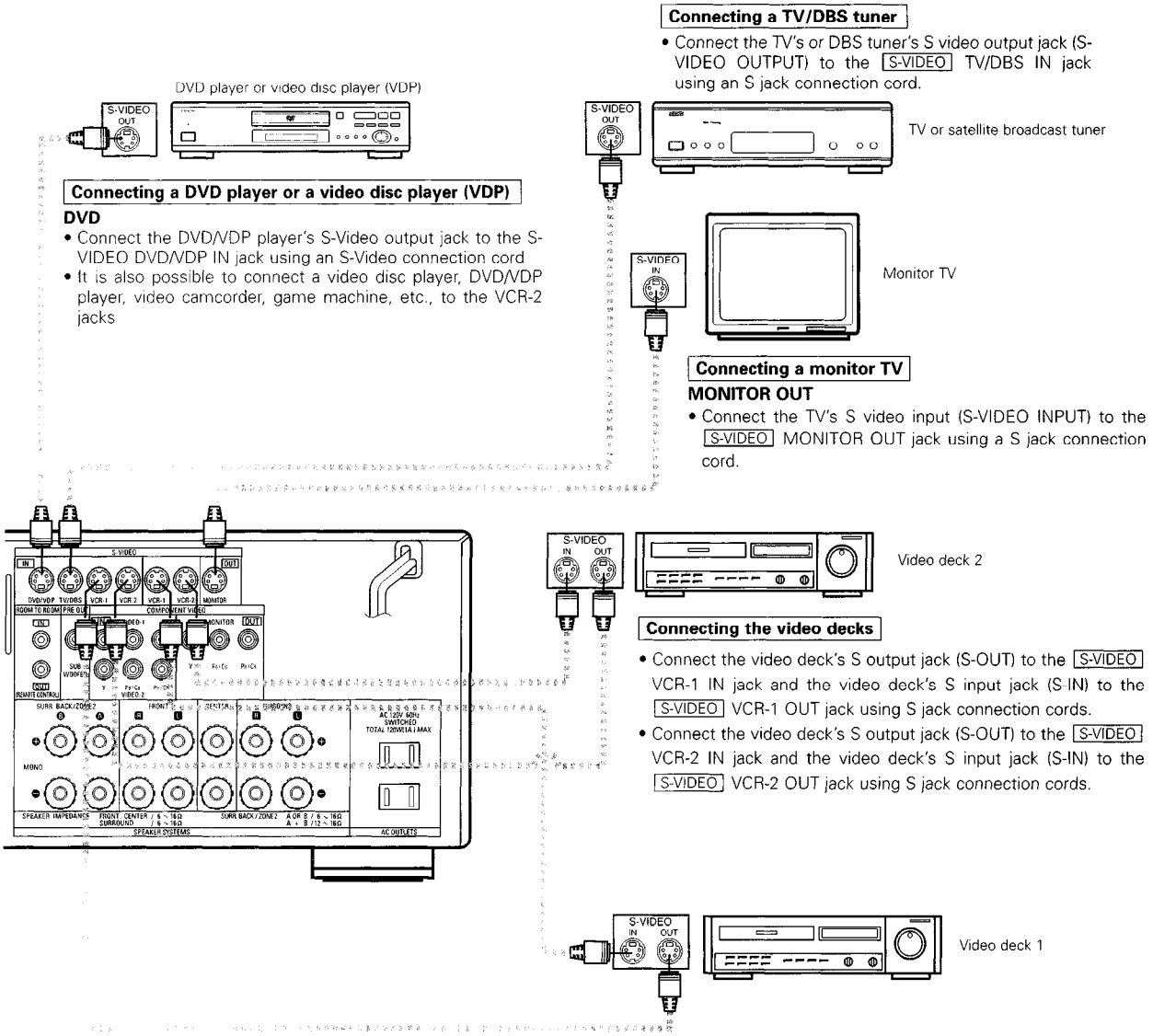
Connecting the audio output jacks

- Connect the video deck's audio output jacks (AUDIO OUT) to the AUDIO VCR-1 IN jacks, and the video deck's audio input jacks (AUDIO IN) to the AUDIO VCR-1 OUT jacks using pin plug cords.

※ Connect the second video deck to the VCR-2 jacks in the same way

Connecting a video component equipped with S-Video jacks

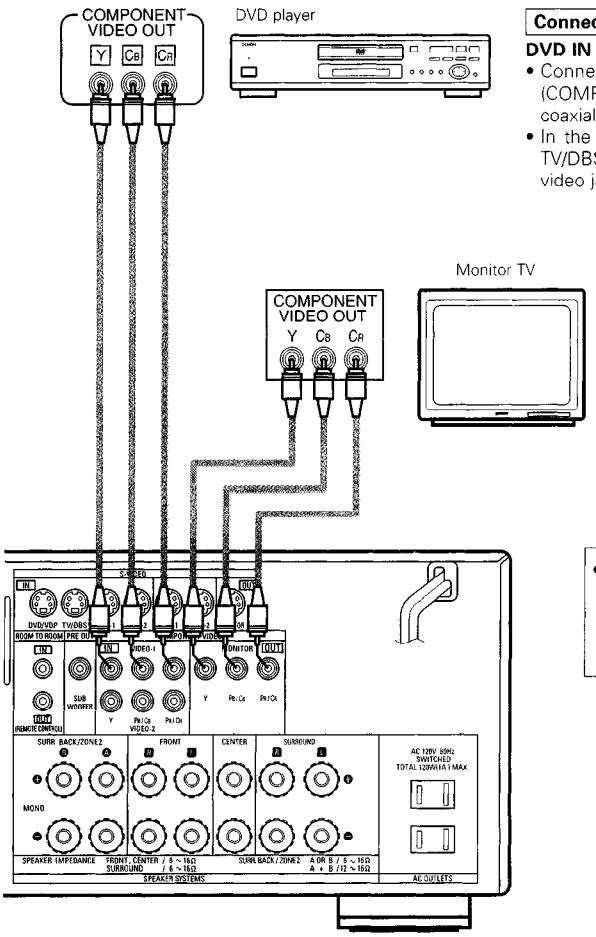
- When making connections, also refer to the operating instructions of the other components.
- **A note on the S input jacks**
  The input selectors for the S inputs and pin jack inputs work in conjunction with each other.
- **Precaution when using S-jacks**
  This unit's S-jacks (input and output) and video pin jacks (input and output) have independent circuit structures, so that video signals input from the S-jacks are only output from the S-jack outputs and video signals input from the pin jacks are only output from the pin jack outputs.
  When connecting this unit with equipment that is equipped with S-jacks, keep the above point in mind and make connections according to the equipment's instruction manuals.



Connect the components' audio inputs and outputs as described on page 10.

Connecting a Video Component Equipped with Color Difference (Component - Y, PR/CR, PB/CB) Video Jacks (DVD Player)

- When making connections, also refer to the operating instructions of the other components.
- The signals input to the color difference (component) video jacks are not output from the VIDEO output jack (yellow) or the S-Video output jack. In addition, the video signals input to the VIDEO input (yellow) and S-Video input jacks are not output to the color difference (component) video jacks.
- Some video sources with component video outputs are labeled Y, CB, CR, or Y, Pb, Pr, or Y, R-Y, B-Y. These terms all refer to component video color difference output.
- At SYSTEM SETUP, the component video input terminal can be assigned for the input sources to which you want to connect AV devices. (For details, see page 25.)



Connecting a DVD player

DVD IN jacks

- Connect the DVD player's color difference (component) video output jacks (COMPONENT VIDEO OUTPUT) to the COMPONENT DVD IN jack using 75 Ω/ohms coaxial video pin-plug cords.
- In the same way, another video source with component video outputs such as a TV/DBS tuner, etc., can be connected to the TV/DBS color difference (component) video jacks.

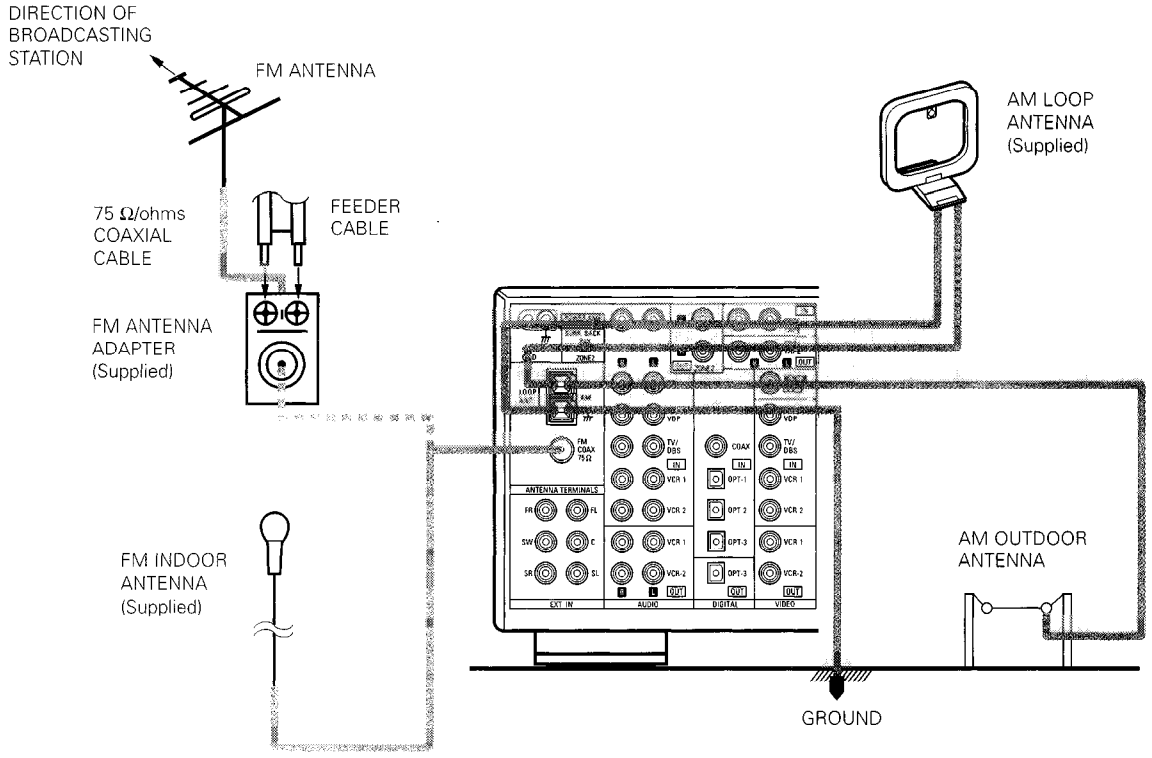
Connecting a monitor TV

MONITOR OUT jack

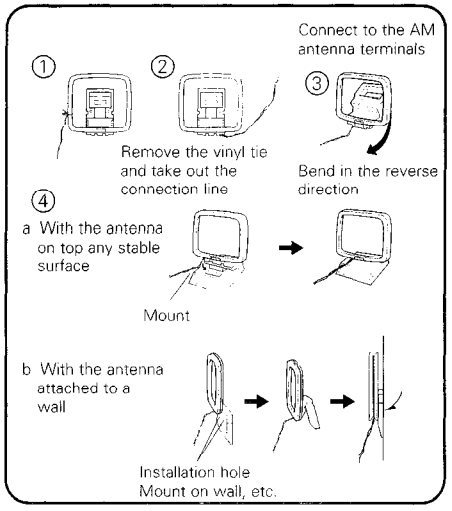
- Connect the TV's color difference (component) video input jacks (COMPONENT VIDEO INPUT) to the COMPONENT MONITOR OUT jack using 75 Ω/ohms coaxial video pin-plug cords.

- The color difference input jacks may be indicated differently on some TVs, monitors or video components ("CR, CB and Y", "R-Y, B-Y and Y", "Pr, Pb and Y", etc.). For details, carefully read the operating instructions included with the TV or other component.

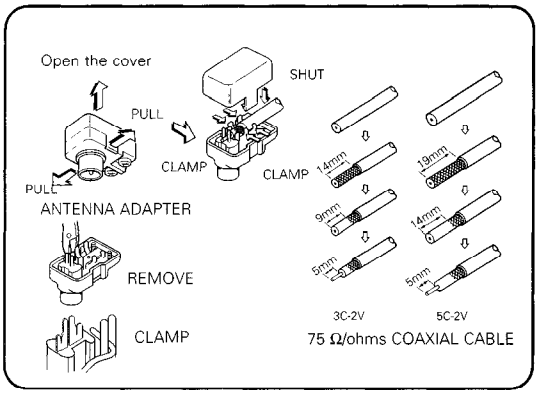
Connecting the antenna terminals



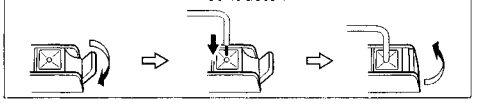
AM loop antenna assembly



FM antenna adapter assembly



Connection of AM antennas

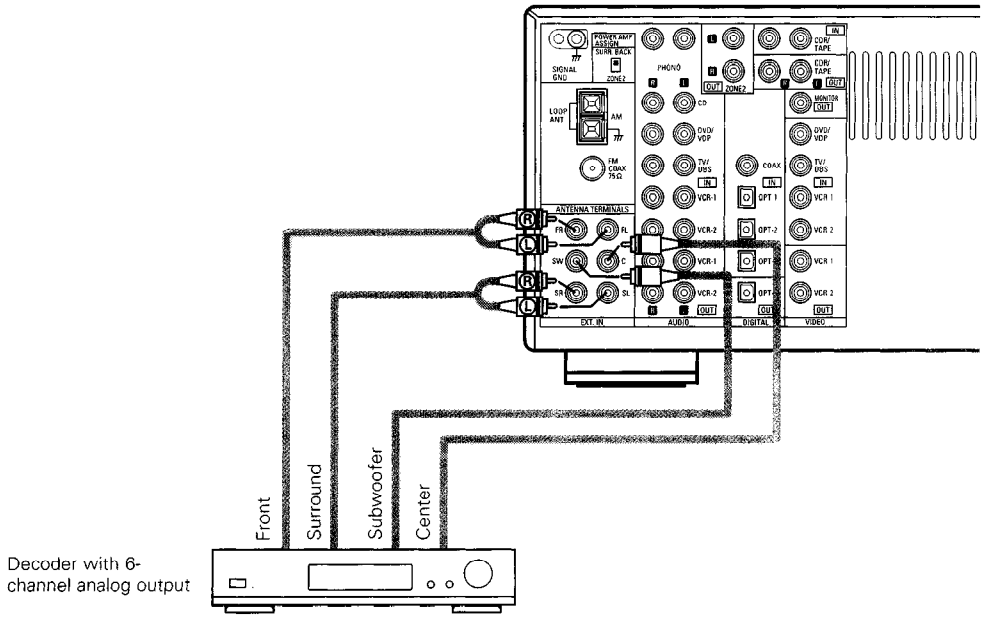


Note to CATV system installer:
This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Notes:
- Do not connect two FM antennas simultaneously.
- Even if an external AM antenna is used, do not disconnect the AM loop antenna.
- Make sure AM loop antenna lead terminals do not touch metal parts of the panel.

Connecting the external input (EXT. IN) jacks

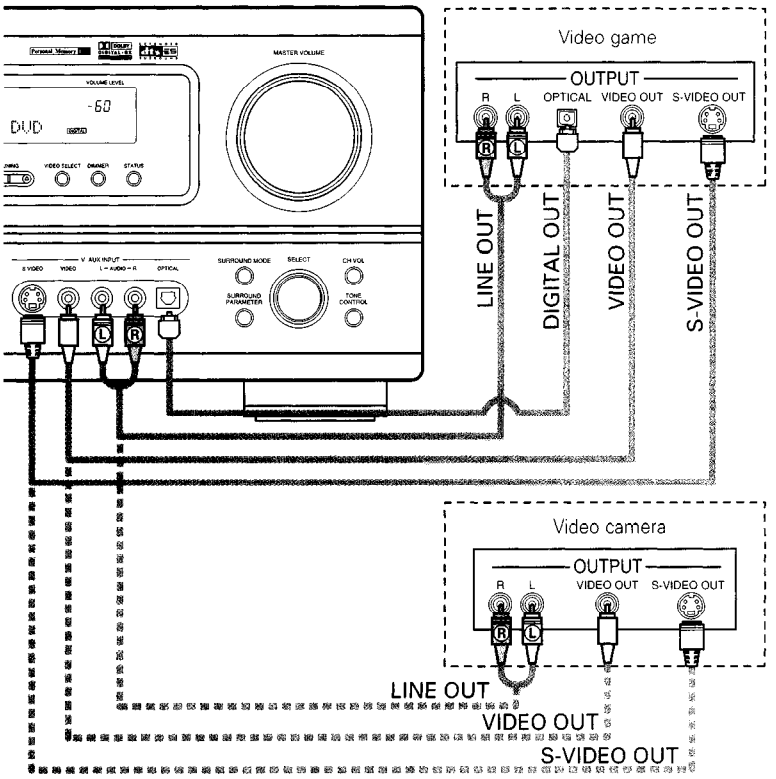
- These jacks are for inputting multi-channel audio signals from an outboard decoder, or a component with a different type of multi-channel decoder, such as a DVD Audio player, or a multi-channel SACD player, or other future multi-channel sound format decoder.
- When making connections, also refer to the operating instructions of the other components.



※ For instructions on playback using the external input (EXT. IN) jacks, see page 35.

Connecting the video component equipped with a V. AUX jacks

To connect the video signal, connect using a 75 Ω/ohms video signal cable cord. Using an improper cable can result in a drop in sound quality.



Connecting a Video game component

- Connect the Video game component's output jacks to this unit's V. AUX INPUT jacks.

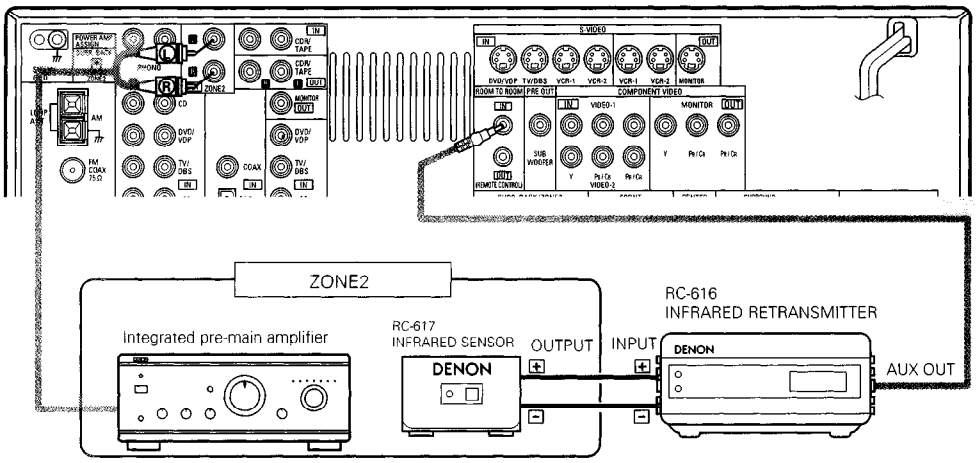
Connecting a video camera component

- Connect the video camera component's output jacks to this unit's V. AUX INPUT jacks.

※ The V. AUX jacks is covered with a cap. Remove this cap in order to use the terminal. (See page 4 for instructions on removing the cap.)

Connecting the ZONE2 jacks

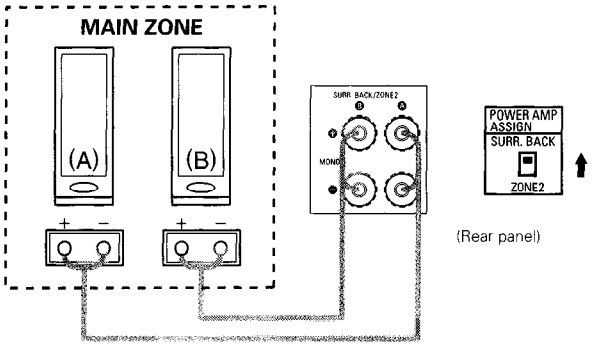
- If another pre-main (integrated) amplifier is connected, the ZONE2 jacks can be used to play a different program source in ZONE2 at the same time.



Connecting the SURROUND BACK / ZONE2 speaker system

To use the surround back speaker in the MAIN ZONE:

- **Set the POWER AMP ASSIGN switch to "SURR. BACK"**. Then plug in the AC main again.
- The same signal is output simultaneously to the SURR. BACK A and B terminals.

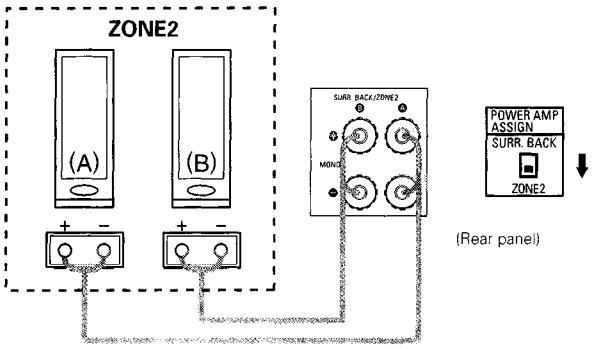


NOTE:

- To use surround back with one speaker, to SURR. BACK A CH. Surround back speaker can be used A + B.

To use the ZONE2 speaker system in ZONE2:

- **Set the POWER AMP ASSIGN switch to "ZONE 2"**. Then plug in the AC main again.
- The same signal is output simultaneously to the ZONE 2 A and B terminals.



NOTE:

- To use ZONE2 with one speaker, to ZONE2 A CH. ZONE2 speaker can be used A + B.

Speaker system connections

- Connect the speaker terminals with the speakers making sure that like polarities are matched (⊕ with ⊕ , ⊖ with ⊖). Mismatching of polarities will result in weak central sound, unclear orientation of the various instruments, and the sense of direction of the stereo being impaired.
- When making connections, take care that none of the individual conductors of the speaker cord come in contact with adjacent terminals, with other speaker cord conductors, or with the rear panel.

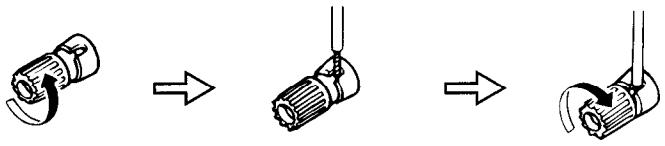
NOTE:
NEVER touch the speaker terminals when the power is on. Doing so could result in electric shocks.

Speaker Impedance

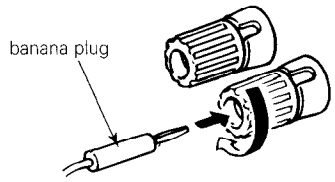
- When speaker systems A and B are use separately, speakers with an impedance of 6 to 16 Ω/ohms can be connected for use as surround back/ZONE2 speakers.
- Be careful when using two pairs of Surround Back/ZONE2 speakers (A + B) at the same time, since use of speakers with an impedance of 12 to 16 Ω/ohms.
- Speakers with an impedance of 6 to 16 Ω/ohms can be connected for use as front, center and surround speakers.
- The protector circuit may be activated if the set is played for long periods of time at high volumes when speakers with an impedance lower than the specified impedance are connected.

Connection the speaker terminals

1. Loosen by turning counterclockwise
2. Insert the cord.
3. Tighten by turning clockwise.



Connecting banana plugs



Turn clockwise to tighten, then insert the banana plug.

Protector circuit

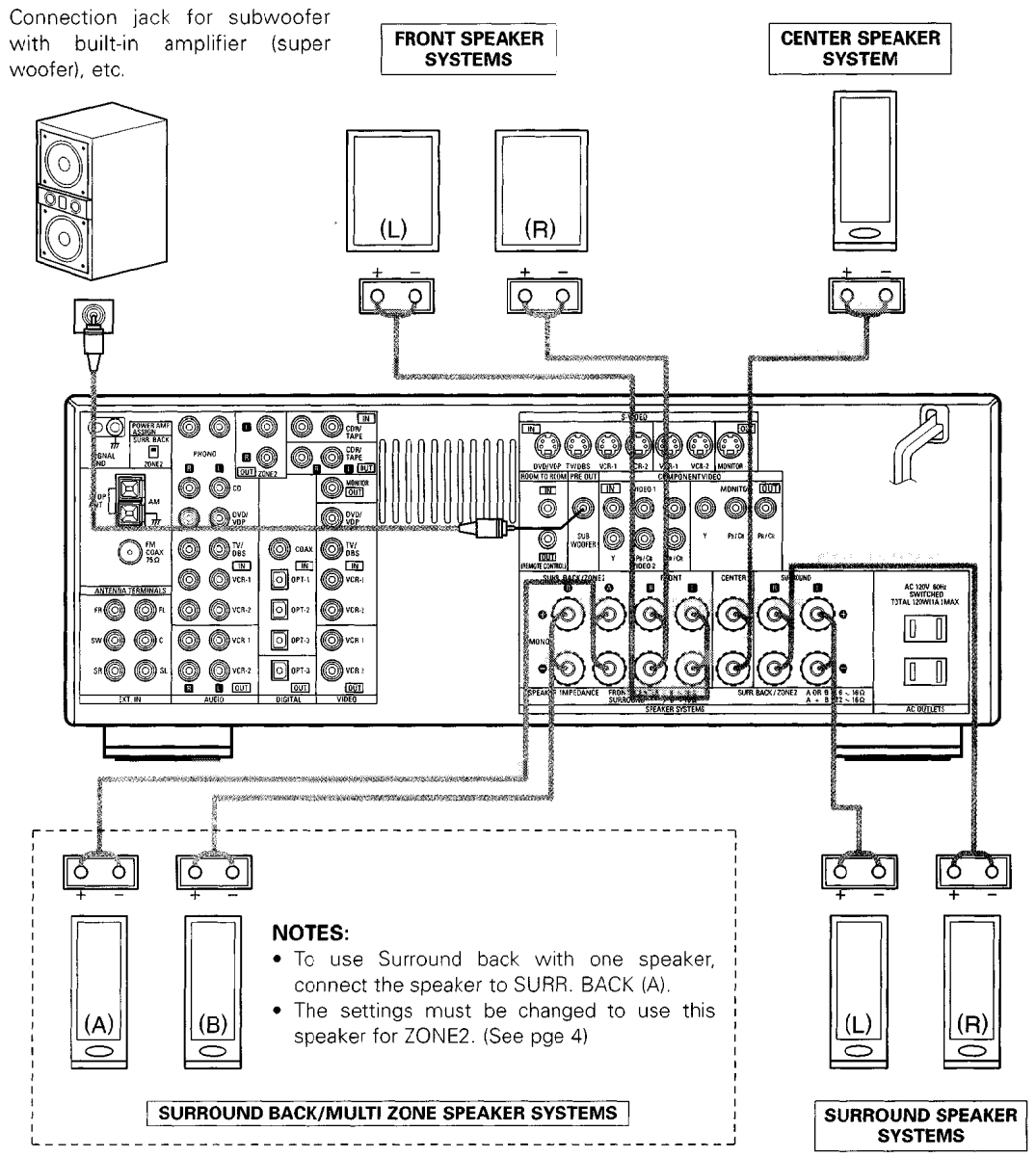
- This unit is equipped with a high-speed protection circuit. The purpose of this circuit is to protect the speakers under circumstances such as when the output of the power amplifier is inadvertently short-circuited and a large current flows, when the temperature surrounding the unit becomes unusually high, or when the unit is used at high output over a long period which results in an extreme temperature rise.
  When the protection circuit is activated, the speaker output is cut off and the power supply indicator LED flashes. Should this occur, please follow these steps: be sure to switch off the power of this unit, check whether there are any faults with the wiring of the speaker cables or input cables, and wait for the unit to cool down if it is very hot. Improve the ventilation condition around the unit and switch the power back on.
  If the protection circuit is activated again even though there are no problems with the wiring or the ventilation around the unit, switch off the power and contact a DENON service center.

Note on speaker impedance

- The protector circuit may be activated if the set is played for long periods of time at high volumes when speakers with an impedance lower than the specified impedance (for example speakers with an impedance of lower than 4 Ω/ohms) are connected. If the protector circuit is activated, the speaker output is cut off. Turn off the set's power, wait for the set to cool down, improve the ventilation around the set, then turn the power back on.

Connections

- When making connections, also refer to the operating instructions of the other components.



NOTES:

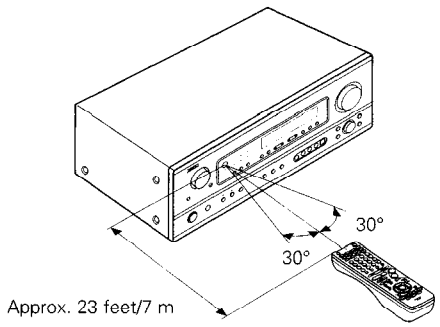
- To use Surround back with one speaker, connect the speaker to SURR. BACK (A).
- The settings must be changed to use this speaker for ZONE2. (See pge 4)

- **Precautions when connecting speakers**
  If a speaker is placed near a TV or video monitor, the colors on the screen may be disturbed by the speaker's magnetism. If this should happen, move the speaker away to a position where it does not have this effect.

9 USING THE REMOTE CONTROL UNIT

Following the procedure outlined below, insert the batteries before using the remote control unit.

Range of operation of the remote control unit

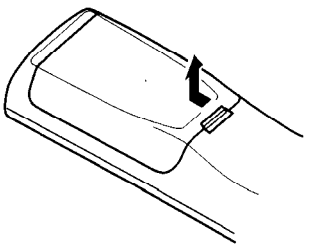


Point the remote control unit at the remote control sensor as shown on the diagram at the left.

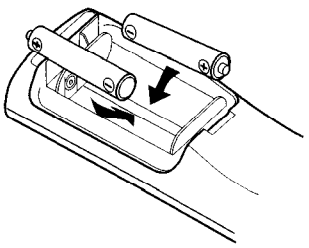
NOTES:
- The remote control unit can be used from a straight distance of approximately 23 feet/7 meters, but this distance will shorten or operation will become difficult if there are obstacles between the remote control unit and the remote control sensor, if the remote control sensor is exposed to direct sunlight or other strong light, or if operated from an angle.
- Neon signs or other devices emitting pulse-type noise nearby may result in malfunction, so keep the set as far away from such devices as possible.

Inserting the batteries

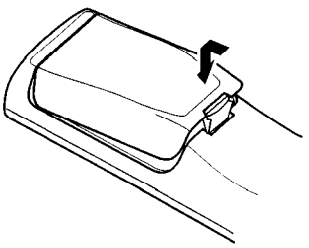
① Press as shown by the arrow and slide off.



② Insert the R6P/AA batteries properly, as shown on the diagram.



③ Close the lid.

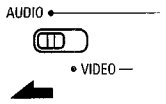


NOTES:
- Use only R6P/AA batteries for replacement.
- Be sure the polarities are correct. (See the illustration inside the battery compartment.)
- Remove the batteries if the remote control transmitter will not be used for an extended period of time.
- If batteries leak, dispose of them immediately. Avoid touching the leaked material or letting it come in contact with clothing, etc. Clean the battery compartment thoroughly before installing new batteries.
- Have replacement batteries on hand so that the old batteries can be replaced as quickly as possible when the time comes.
- Even if less than a year has passed, replace the batteries with new ones if the set does not operate even when the remote control unit is operated nearby the set. (The included battery is only for verifying operation. Replace it with a new battery as soon as possible.)

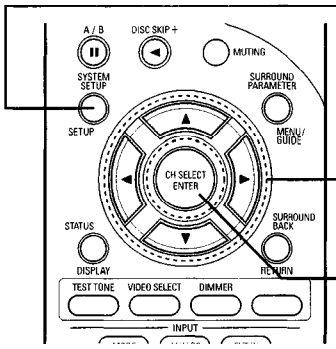
10 SETTING UP THE SYSTEM

- Once all connections with other AV components have been completed as described in "CONNECTIONS" (see pages 9 to 17), make the various settings described below on the display.
  These settings are required to set up the listening room's AV system centered around the this unit.
- Use the following buttons to set up the system:

1 Set the slide switch to "AUDIO".



2 Use the following buttons to set up the system:



SYSTEM SETUP button

Press this to display the system setup on the display.

CURSOR buttons (▲, ▼, ◄, ►)

Press this change what appears on the display.

ENTER button

Press this to switch the display.
Also use this button to complete the setting.

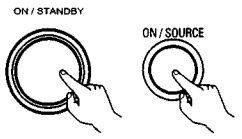
- System setup items and default values (set upon shipment from the factory)

System setup			Default settings						
Speaker Configuration	Input the combination of speakers in your system and their corresponding sizes (SMALL for regular speakers, LARGE for full-size, full-range) to automatically set the composition of the signals output from the speakers and the frequency response		Front Sp.	Center Sp	Surround Sp.	Surround Back Sp.	Subwoofer		
			Large	Small	Small	Small	Yes		
Subwoofer mode	This selects the subwoofer speaker for playing deep bass signals.		Normal						
Crossover Frequency	Set the frequency (Hz) below which the bass sound of the various speakers is to be output from the subwoofer		80 Hz						
Delay Time	This parameter is for optimizing the timing with which the audio signals are produced from the speakers and subwoofer according to the listening position.		Front & Subwoofer	Center	Surround L & R	Surround Back			
			12 ft (3 6 m)	12 ft (3 6 m)	10 ft (3 0 m)	10 ft (3.0 m)			
Digital In Assignment	This assigns the digital input jacks for the different input sources.	Input source	CD	DVD/VDP	TV/DBS	VCR-1	VCR-2	CDR/TAPE	—
		Digital Inputs	COAXIAL	OPTICAL 1	OPTICAL 2	OFF	OFF	OPTICAL 3	—
Video In Assignment	This assigns the component video input jacks for the different video input sources	Input source	DVD/VDP	TV/DBS	VCR-1	VCR-2	V. AUX	—	
		Component Inputs	VIDEO 1	VIDEO 2	OFF	OFF	OFF	—	
Auto Surround Mode	Auto surround mode function setting		Auto Surround Mode = ON						
Ext In SW Level	Set the Ext In Subwoofer channel playback level		Ext. In SW Level = +15 dB						

NOTE:
- The system setup is not displayed when "HEADPHONE ONLY" is selected.

Before setting up the system

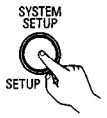
1



(Main unit) (Remote control unit)

Check that all the components are correct, then press the POWER operation switch on the main unit or the POWER button on the remote control unit to turn on the power.

2

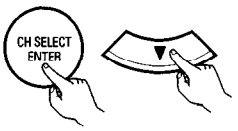


Press the SYSTEM SETUP button to enter the setting.

*SYSTEM SET UP

NOTE: Please make sure the "AUDIO" position of the slide switch on the remote control unit.

3

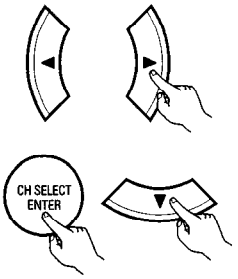


Press the ENTER or ▼ (down) button to switch to the speaker configuration set up.

NOTE:
Press the SYSTEM SETUP button again to finish system set up. System set up can be finished at any time. The changes to the settings made up to that point are entered.

Setting the speaker configuration

1



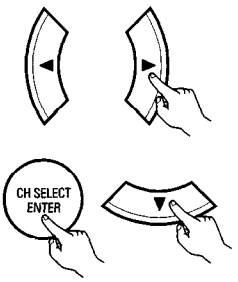
Use the ◄ (left) and ► (right) buttons to select your front speaker type.

1 FRONT LARGE

(Initial)
LARGE ← (left) button
SMALL → (right) button

Press the ENTER or ▼ (down) button to switch to the center speaker setting.

2



Use the ◄ (left) and ► (right) buttons to select your center speaker type.

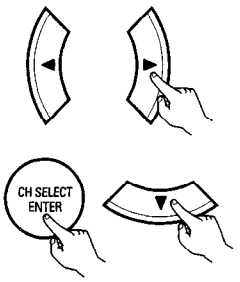
2 CENTER SMALL

(Initial)
LARGE ← (left) button
SMALL
NONE → (right) button

Press the ENTER or ▼ (down) button to switch to the surround speaker setting.

NOTE:
- When "Small" has been selected for the front speakers, "Large" cannot be selected for the center speaker.

3



Use the ◄ (left) and ► (right) buttons to select your surround speaker type.

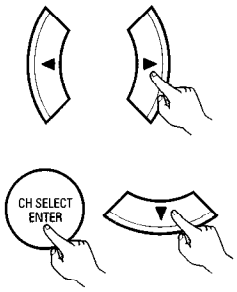
3 SURR. SMALL

(Initial)
LARGE ← (left) button
SMALL
NONE → (right) button

Press the ENTER or ▼ (down) button to switch to the surround back speaker setting.

NOTE:
- When "Small" has been selected for the front speakers, "Large" cannot be selected for the surround speakers.

4



Use the ◀ (left) and ▶ (right) buttons to select your surround back speaker type.

4 S.BACK SMALL

(Initial)

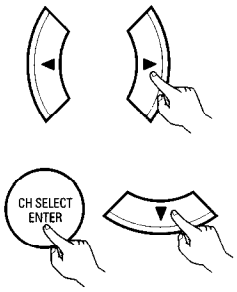
LARGE | SMALL | NONE

(left) button (right) button

Press the ENTER or ▼ (down) button to switch to the subwoofer setting.

NOTE:
- When "Small" has been selected for the surround speakers, "Large" cannot be selected for the surround back speakers.
- This setting is not displayed when the POWER AMP ASSIGN switch on the main unit's rear panel is set to "ZONE 2". (See page 4)

5



Use the ◀ (left) and ▶ (right) buttons to select your subwoofer setting.

5 S.WOOFER YES

(Initial)

YES | NO

(left) button (right) button

Press the ENTER or ▼ (down) button to enter the settings and switch to the SUBWOOFER MODE setting.

- **Parameters**

Large..... Select this when using speakers that can fully reproduce low sounds of below 80 Hz.
Small..... Select this when using speakers that cannot reproduce low sounds of below 80 Hz with sufficient volume. When this setting is selected, low frequencies of below 80 Hz are assigned to the subwoofer.
None..... Select this when no speakers are installed.
Yes/No.... Select "Yes" when a subwoofer is installed, "No" when it's not installed.

NOTE:
Select "Large" or "Small" not according to the physical size of the speaker, but according to the bass reproduction capacity at 80 Hz. If you cannot determine the best setting, try comparing the sound when set to "Small" and when set to "Large", at a level that will not damage the speakers.

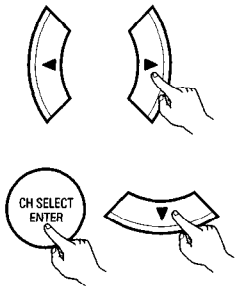
Caution:
In case the subwoofer is not used, be sure to set "Subwoofer = No", or the bass sound of front channel is divided to subwoofer channel and not reproduced in some mode.

Setting the Subwoofer mode and Crossover Frequency

This screen is not displayed when not using a subwoofer.

- Set the crossover frequency and subwoofer mode according to the speaker system being used.

1



Use the (left) and (right) buttons to select the Subwoofer mode.

6 SW MODE NORM

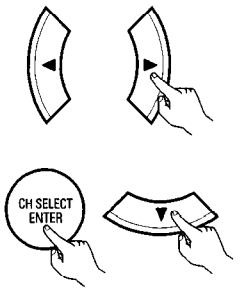
(Initial)

+MAIN | NORM

(left) button (right) button

Press the ENTER or (down) button to enter the setting and switch to the Crossover Frequency setting.

2



Use the (left) and (right) buttons to select the Crossover Frequency.

7 CR.OVER 80Hz

(Initial)

80Hz | 100Hz | 120Hz

(left) button (right) button

Press the ENTER or (down) button to enter the setting and switch to the SPEAKER DISTANCE setting.

NOTES:

— Assignment of low frequency signal range —

- The signals produced from the subwoofer channel are LFE signals (during playback of Dolby Digital or DTS signals) and the low frequency signal range of channels set to "SMALL" in the setup. The low frequency signal range of channels set to "LARGE" are produced from those channels.

— Crossover Frequency —

- When "Subwoofer" is set to "Yes" at the "Speaker Configuration Setting", set the frequency (Hz) below which the bass sound of the various speakers is to be output from the subwoofer (the crossover frequency).
- For speakers set to "Small", sound with a frequency below the crossover frequency is cut, and the cut bass sound is output from the subwoofer instead.

  NOTE: For ordinary speaker systems, we recommend setting the crossover frequency to 80 Hz. When using small speakers, however, setting the crossover frequency to a high frequency may improve frequency response for frequencies near the crossover frequency.

— Subwoofer mode —

- The subwoofer mode setting is only valid when "LARGE" is set for the front speakers and "YES" is set for the subwoofer in the "Speaker Configuration" settings (see pages 20, 21).

  If "SMALL" is set for the front speakers or "NO" is set for the subwoofer, the subwoofer mode setting does not affect playback of low frequency signal range.
- When the "+MAIN" playback mode is selected, the low frequency signal range of channels set to "LARGE" are produced simultaneously from those channels and the subwoofer channel.

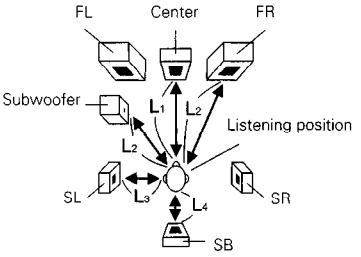
  In this playback mode, the low frequency range expand more uniformly through the room, but depending on the size and shape of the room, interference may result in a decrease of the actual volume of the low frequency range.
- When the "NORM" playback mode is selected, the low frequency signal range of channels set to "LARGE" are only produced from those channels. In this playback mode there tends to be little interference of the low frequency range in the room.
- Try playing the music or movie source and select the playback mode providing the stronger low frequency range sound.

Setting the delay time

- Input the distance between the listening position and the different speakers to set the delay time for the surround mode.

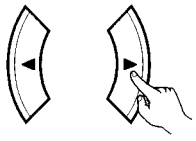
Preparations:
Measure the distances between the listening position and the speakers (L1 to L4 on the diagram at the right).

L1: Distance between center speaker and listening position
L2: Distance between front speakers/subwoofer and listening position
L3: Distance between surround speakers and listening position
L4: Distance between surround back speaker and listening position



CAUTION:
※ Set the center speaker at the same distance from the front speakers (left and right) or the subwoofer, or so that the difference in distance (L2 – L1) is 5 feet or less.
※ Set the surround speakers (left and right) at the same distance from the front speakers (left and right) or the subwoofer, or so that the difference in distance (L2 – L3) is 15 feet or less.
※ Set the surround back speaker at the same distance from the front speakers or the subwoofer, or so that the difference in distance (L2 – L4) is 15 feet or less.

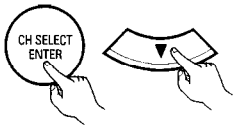
1



Use the ◀ (left) and ▶ (right) buttons to set the distance from the front speakers and subwoofer to the listening position.

```
8 FRNT/SW   12ft
```

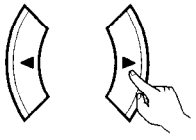
- The number changes in units of 1 foot each time one of the buttons is pressed. Select the value closest to the measured distance.
  ("/SW" appears only when subwoofer = yes.)



Press the ENTER or ▼ (down) button to switch to the center speaker setting.

NOTE:
- The speaker distance can be adjusted between 0 and 60 feet in steps of 1 foot.

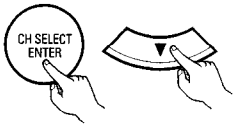
2



Use the ◀ (left) and ▶ (right) buttons to set the distance from the center speaker to the listening position.

```
9 CENTER    12ft
```

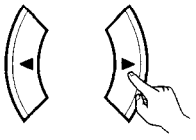
- The number changes in units of 1 foot each time one of the buttons is pressed. Select the value closest to the measured distance.



Press the ENTER or ▼ (down) button to switch to the surround speakers setting.

NOTE:
- No setting when "None" has been selected for the center speaker.

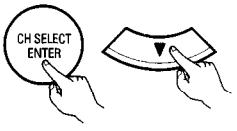
3



Use the ◀ (left) and ▶ (right) buttons to set the distance from the surround speakers to the listening position.

```
10 SURR.    10ft
```

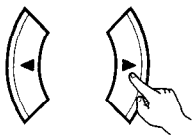
- The number changes in units of 1 foot each time one of the buttons is pressed. Select the value closest to the measured distance.



Press the ENTER or ▼ (down) button to switch to the surround back speaker setting.

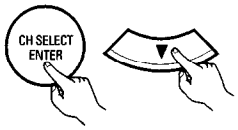
NOTE:
- No setting when "None" has been selected for the surround speakers.

4



Use the ◁ (left) and ▷ (right) buttons to set the distance from the surround back speakers to the listening position.

11 S.BACK 10ft



- The number changes in units of 1 foot each time one of the buttons is pressed. Select the value closest to the measured distance.

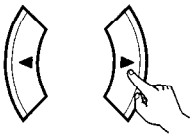
Press the ENTER or ▽ (down) button to enter the setting and switch the DIGITAL input (COAX) setting.

NOTE:
- No setting when "None" has been selected for the surround back speakers.
- This is not displayed either when ZONE 2 is set with the POWER AMP ASSIGN switch on the main unit's rear panel. (See page 4)

Setting the Digital In assignment

Input the type of components connected to the digital input terminals.

1



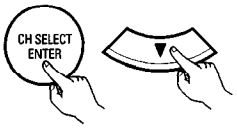
Use the ◁ (left) and ▷ (right) buttons to assign the input function connected to the COAXIAL input (COAXIAL) terminal.

12 COAX CD

(Initial)

CD | DVD | TV | VCR1 | VCR2 | TAPE | OFF

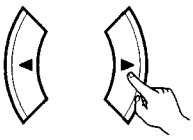
◁ ← (left) button → ▷ (right) button



- Select "OFF" if nothing is connected.

Press the ENTER or ▽ (down) button to switch the optical input 1 (OPT1) setting.

2



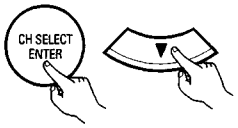
Use the ◁ (left) and ▷ (right) buttons to assign the input function connected to the OPTICAL 1 input (OPTICAL 1) terminal.

13 OPT1 DVD

(Initial)

CD | DVD | TV | VCR1 | VCR2 | TAPE | OFF

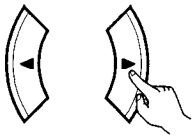
◁ ← (left) button → ▷ (right) button



- Select "OFF" if nothing is connected.

Press the ENTER or ▽ (down) button to switch the optical input 2 (OPT2) setting.

3



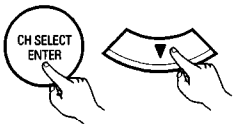
Use the ◁ (left) and ▷ (right) buttons to assign the input function connected to the OPTICAL 2 input (OPTICAL 2) terminal.

14 OPT2 TV

(Initial)

CD | DVD | TV | VCR1 | VCR2 | TAPE | OFF

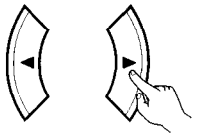
◁ ← (left) button → ▷ (right) button



- Select "OFF" if nothing is connected.

Press the ENTER or ▽ (down) button to switch the optical input 3 (OPT3) setting.

4



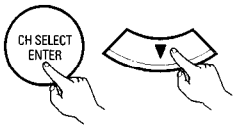
Use the ◀ (left) and ▶ (right) buttons to assign the input function connected to the OPTICAL 3 input (OPTICAL 3) terminal.

15 OPT2 TAPE

(Initial)

CD | DVD | TV | VCR1 | VCR2 | TAPE | OFF

◀ ← (left) button → ▶ (right) button



- Select "OFF" if nothing is connected.

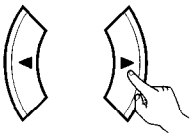
Press the ENTER or ▼ (down) button to enter the setting and switch the Component Video input (VIDEO1) setting.

NOTE:
- PHONO, TUNER and V. AUX cannot be selected.

Setting the Video In assignment

Input the type of components connected to the component video input terminals.

1



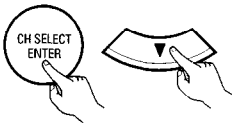
Use the ◀ (left) and ▶ (right) buttons to assign the input function connected to the COMPONENT VIDEO 1 input (VIDEO 1) terminal.

16 VIDEO1 DVD

(Initial)

DVD | TV | VCR1 | VCR2 | V.AUX | OFF

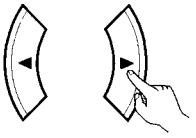
◀ ← (left) button → ▶ (right) button



- Select "OFF" if nothing is connected.

Press the ENTER or ▼ (down) button to enter the setting and switch the component input 2 (VIDEO2) setting.

2



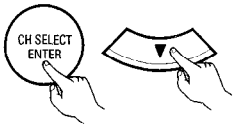
Use the ◀ (left) and ▶ (right) buttons to assign the input function connected to the COMPONENT VIDEO 2 input (VIDEO 2) terminal.

17 VIDEO2 TV

(Initial)

DVD | TV | VCR1 | VCR2 | V.AUX | OFF

◀ ← (left) button → ▶ (right) button



- Select "OFF" if nothing is connected.

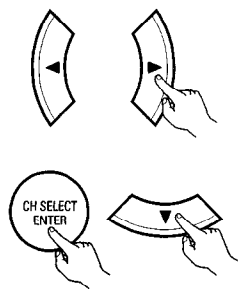
Press the ENTER or ▼ (down) button to enter the setting and switch the Auto Surround Mode setting.

Setting the Auto Surround Mode

For the three kinds of input signals as shown below, the surround mode played the last is stored in the memory. At next time it the same signal inputs, the memorized surround mode is automatically selected and the signal is played.
Note that the surround mode setting is also stored separately for the different input function.

	SIGNAL	Default Auto Surround Mode
①	Analog and PCM 2-channel signals	STEREO
②	2-channel signals of Dolby Digital, DTS or other multichannel format	Dolby PLII Cinema
③	Multichannel signals of Dolby Digital, DTS or other multichannel format	Dolby or DTS Surround

1



Use the (left) and (right) buttons to select the Auto Surround mode.

18 AUTOSURR. ON

(Initial)

OFF ON

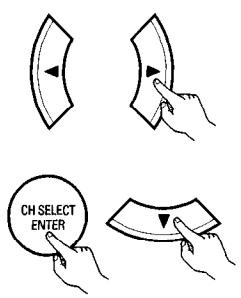
(left) button (right) button

Press the ENTER or (down) button to switch the Ext. In SW Level setting.

Setting the Ext. In SW Level

Set the playback level of the analog input signal connected to the Ext. In terminal.

1



Use the (left) and (right) buttons to select the Ext. In Subwoofer channel Level playback.

19 EXT.IN SW +15

(Initial)

+00 +05 +10 +15

(left) button (right) button

Press the ENTER or (down) button if you want to start the settings over from the beginning.

- Select according to the specifications of the player being used. Also refer to the player's operating instructions.
- +15dB (default) recommended. (0, +5, 10 and +15 can be selected.)

After setting up the system

1

Press the SYSTEM SETUP button to finish system set up.

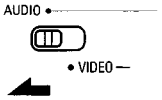
This completes the system setup operations. Once the system is set up, there is no need to make the settings again unless other components or speakers are connected to or the speaker layout is changed.

11 REMOTE CONTROL UNIT

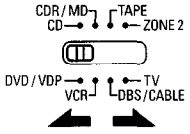
Operating DENON audio components

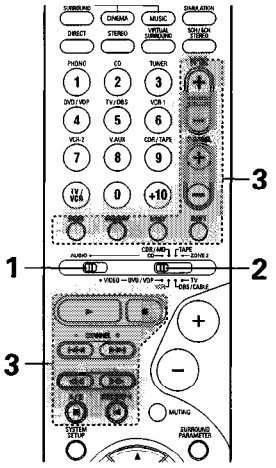
- Turn on the power of the different components before operating them.

1 Set mode switch 1 to "AUDIO".



2 Set mode switch 2 to the position for the component to be operated. (CD, CDR/MD or Tape deck)



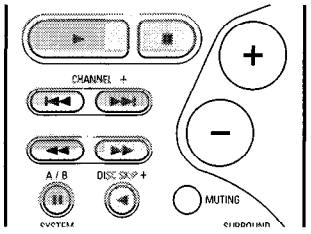


3 Operate the audio component.

- For details, refer to the component's operating instructions.

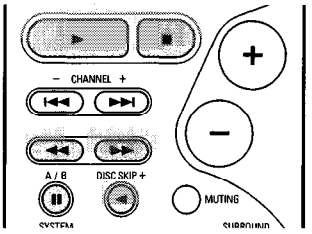
※ While this remote control is compatible with a wide range of infrared controlled components, some models of components may not be operated with this remote control.

1. CD player (CD) and CD recorder and MD recorder (CDR/MD) system buttons



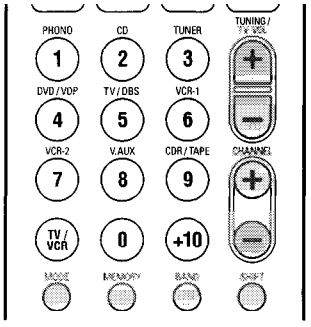
◀◀, ▶▶ : Manual search (forward and reverse)
■ : Stop
▶ : Play
|◀◀, ▶▶| : Auto search (cue)
❚❚ : Pause
DISC SKIP+ : Switch discs (for CD changers only)

2. Tape deck (TAPE) system buttons



◀◀ : Rewind
▶▶ : Fast-forward
■ : Stop
▶ : Forward play
◀ : Reverse play
A/B : Switch between decks A and B

3. Tuner system buttons



SHIFT : Switch preset channel range
CHANNEL +, – : Preset channel up/down
TUNING +, – : Frequency up/down
BAND : Switch between the AM and FM bands
MODE : Switch between auto and mono
MEMORY : Preset memory

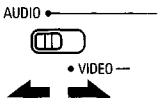
NOTE:

- TUNER can be operated when the switch is at "AUDIO" position.

Preset memory

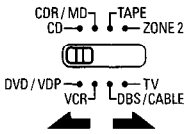
DENON and other makes of components can be operated by setting the preset memory.
This remote control unit can be used to operate components of other manufacturers without using the learning function by registering the manufacturer of the component as shown on the List of Preset Codes (pages 126~130).
Operation is not possible for some models.

1 Set mode switch 1 to "AUDIO" or "VIDEO".



Set the AUDIO side for the CD, Tape deck or CDR/MD position, to the VIDEO side for the DVD/VDP, DBS/CABLE, VCR or TV position.

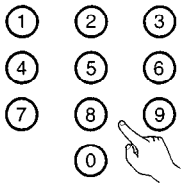
2 Set mode switch 2 to the component to be registered.



3 Press the ON/SOURCE button and the OFF button at the same time.

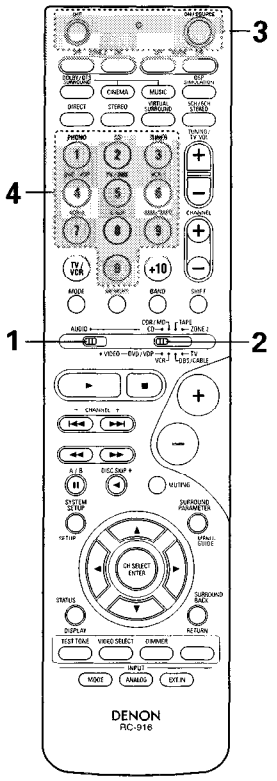
- Indicator flash.

4



Referring to the included List of Preset Codes, use the number buttons to input the preset code (a 3-digit number) for the manufacturer of the component whose signals you want to store in the memory.

5 To store the codes of another component in the memory, repeat steps 1 to 4.



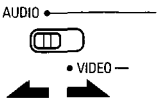
NOTES:
- The signals for the pressed buttons are emitted while setting the preset memory. To avoid accidental operation, cover the remote control unit's transmitting window while setting the preset memory.
- Depending on the model and year of manufacture, this function cannot be used for some models, even if they are of makes listed on the included list of preset codes.
- Some manufacturers use more than one type of remote control code. Refer to the included list of preset codes to change the number and check.
- **The preset memory can be set for one component only among the following: CDR/MD, DVD/VDP and DBS/CABLE.**

The preset codes are as follows upon shipment from the factory and after resetting:

TV, VCR ..... HITACHI
CD, TAPE ..... DENON
CDR/MD ..... DENON (CDR)
DVD/VDP ..... DENON (DVD)
DBS/CABLE ..... ABC (CABLE)

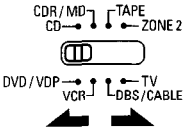
Operating component stored in the preset memory

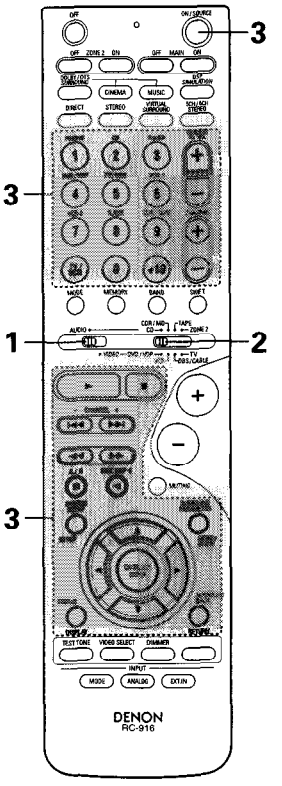
1 Set mode switch 1 to "AUDIO" or "VIDEO".



Set the AUDIO side for the CD, tape deck or CDR/MD position, to the VIDEO side for the DVD/VDP, DBS/CABLE, VCR or TV position.

2 Set mode switch 2 to the component you want to operate.





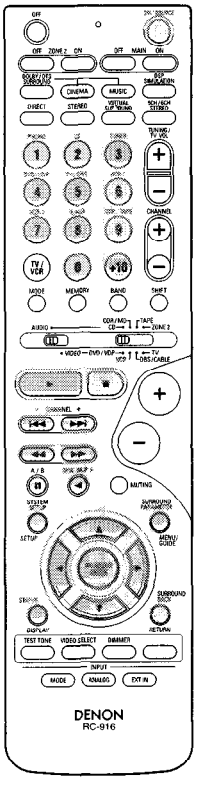
3 Operate the component.
- For details, refer to the component's operating instructions.

※ Some models cannot be operated with this remote control unit.

1. Digital video disc player (DVD, DVD SETUP) system buttons

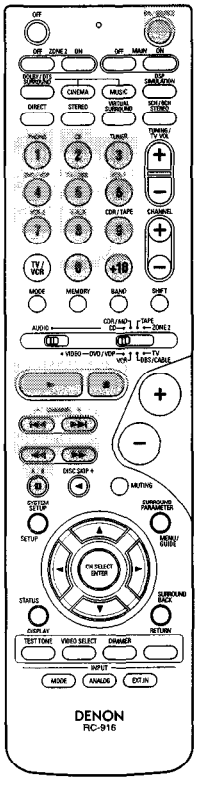
POWER (ON/SOURCE)	: Power on/standby
◀◀,▶▶	: Manual search (forward and reverse)
■	: Stop
▶	: Play
⏮,⏭	: Auto search (to beginning of track)
❚❚	Pause
0 ~ 9, +10	: 10 key
skip +	: Disc skip (for DVD changer only)
DISPLAY	: Switch display
MENU	: Menu
RETURN	: Return
SETUP	: Setup
△, ▽, ◁, ▷	: Cursor up, down, left and right
ENTER	: Enter setting

NOTE:
- Some manufacturers use different names for the DVD remote control buttons, so also refer to the instructions on remote control for that component.



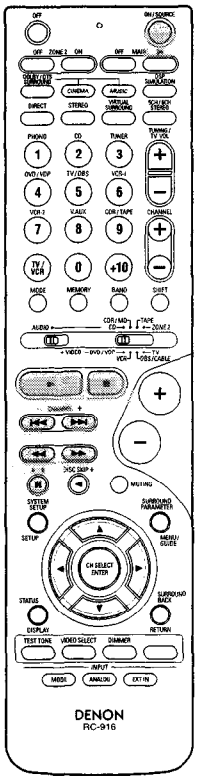
2. Video disc player (VDP) system buttons

POWER (ON/SOURCE)	: Power on/standby
◀◀,▶▶	: Manual search (forward and reverse)
■	: Stop
▶	: Play
⏮,⏭	: Auto search (cue)
❚❚	: Pause
0~9, +10	: 10 key



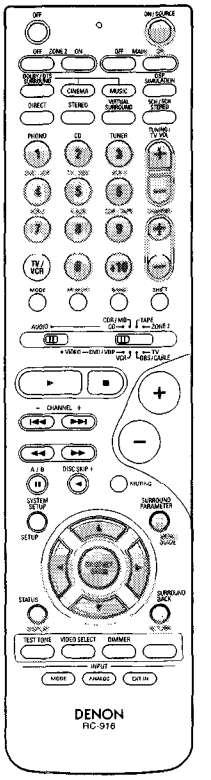
3. Video deck (VCR) system buttons

POWER (ON/SOURCE)	: Power on/standby
◀◀,▶▶	: Manual search (forward and reverse)
■	: Stop
▶	: Play
❚❚	: Pause
Channel +, –	: Channels



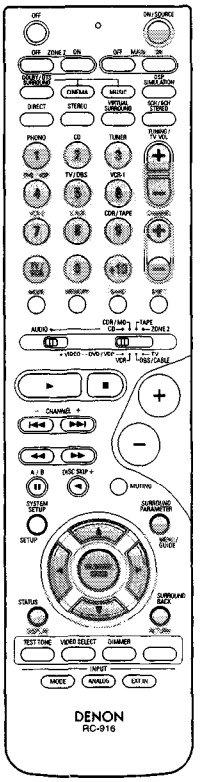
4. Digital broadcast satellite (DBS) tuner and cable (CABLE) system buttons

POWER (ON/SOURCE)	: Power on/standby
MENU	: Menu
RETURN	: Return
△, ▽, ◁, ▷	: Cursor up, down, left and right
ENTER	: Enter
CHANNEL +, –	: Switch channels
0~9, +10	: Channels
DISPLAY	: Switch display
VOL +, –	: Volume up/down



5. Monitor TV (TV) system buttons

POWER (ON/SOURCE)	: Power on/standby
MENU	: Menu
RETURN	: Return
△, ▽, ◁, ▷	: Cursor up, down, left and right
ENTER	: Enter
CHANNEL +, –	: Switch channels
0~9, +10	: Channels
DISPLAY	: Switch display
TV/VCR	: Switch between TV and video player
TV VOL +, –	: Volume up/down

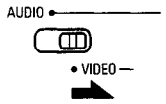


NOTES:
- For this CD, CDR, MD and TAPE components, buttons can be operated in the same way as for Denon audio components (page 27).
- The TV can be operated when the switch is at DVD/VDP, VCR, TV position.

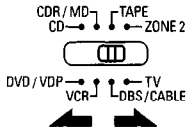
Punch Through

- "Punch Through" is a function allowing you to operate the PLAY, STOP, MANUAL SEARCH and AUTO SEARCH buttons on the CD, TAPE, CDR/MD, DVD/VDP or VCR components when in the DBS/CABLE or TV mode. By default, nothing is set.

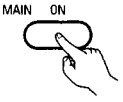
1 Set mode switch 1 to "VIDEO".



2 Set mode switch 2 to the component to be registered (DBS/CABLE or TV).

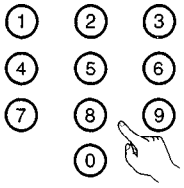


3 Press the OFF (ZONE2) button and the ON (MAIN) button at the same time.



- Indicator flash.

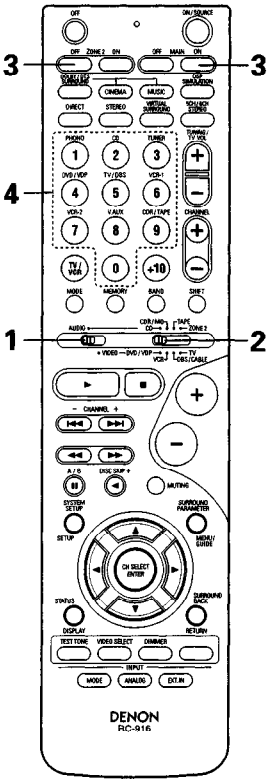
4



Input the number of the component you want to set. (See Table 1)

Table 1

	No.
CD	1
TAPE	2
CDR/MD	3
DVD/VDP	4
VCR	5
No setting	0

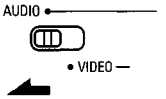


12 OPERATION

Before operating

1 Refer to "CONNECTIONS" (pages 9 to 17) and check that all connections are correct.

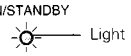
2 Set the remote control unit's slide switch to the AUDIO position. (only when operating with the remote control unit)



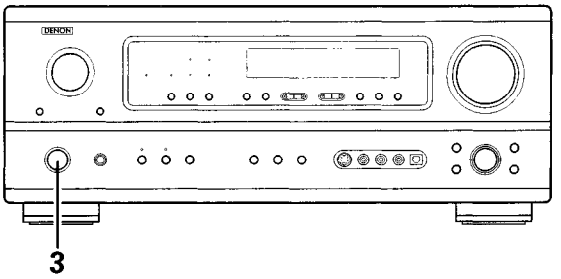
3 Turn on the power.
Press the ON/STANDBY button on the main unit or ON/SOURCE button on the remote control unit to turn on the power.

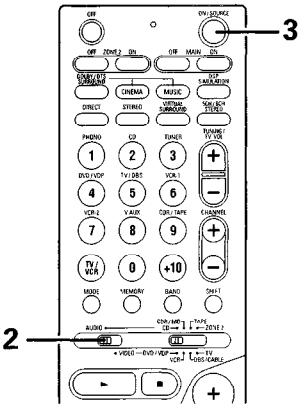
(Main unit)

(Remote control unit)

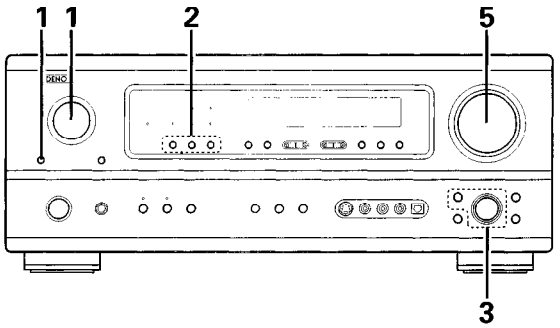


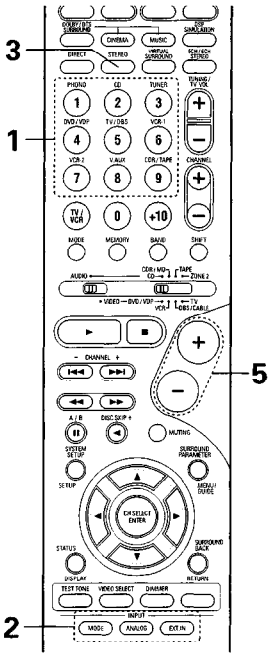
- ON/STANDBY
  When the button is pressed, the power turns on and the display lights after approximately 1 second.
  When pressed again, the power turns off, the standby mode is set and the display turns off.
  Several seconds are required from the time the power operation switch is set to the "ON" position until sound is output. This is due to the built-in muting circuit that prevents noise when the power switch is turned on and off.





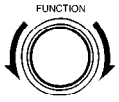
Playing the input source





1 Select the input source to be played.

Example: CD



(Main unit)

(Remote control unit)

※ To select the input source when ZONE2/REC OUT is selected, press the MAIN button then operate the input function selector.

(Main unit)

2 Select the input mode.

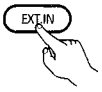
- Selecting the analog mode
  Press the ANALOG button to switch to the analog input.

(Main unit)

(Remote control unit)

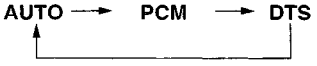
- Selecting the external input (EXT. IN) mode
  Press the EXT. IN to switch the external input.

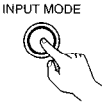
(Main unit)



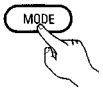
(Remote control unit)

- Selecting the AUTO, PCM and DTS modes
  The mode switches as shown below each time the INPUT MODE button is pressed.





(Main unit)



(Remote control unit)

Input mode selection function

Different input modes can be selected for the different input sources. The selected input modes for the separate input sources are stored in the memory.

① AUTO (auto mode)
In this mode, the types of signals being input to the digital and analog input jacks for the selected input source are detected and the program in the AVR-1803/883's surround decoder is selected automatically upon playback. This mode can be selected for all input sources other than PHONO and TUNER.
The presence or absence of digital signals is detected, the signals input to the digital input jacks are identified and decoding and playback are performed automatically in DTS, Dolby Digital or PCM (2 channel stereo) format. If no digital signal is being input, the analog input jacks are selected.
Use this mode to play Dolby Digital signals.

② PCM (exclusive PCM signal playback mode)
Decoding and playback are only performed when PCM signals are being input.
Note that noise may be generated when using this mode to play signals other than PCM signals.

③ DTS (exclusive DTS signal playback mode)
Decoding and playback are only performed when DTS signals are being input.

④ ANALOG (exclusive analog audio signal playback mode)
The signals input to the analog input jacks are decoded and played.

⑤ EXT. IN (external decoder input jack selection mode)
The signals being input to the external decoder input jacks are played without passing through the surround circuitry.

NOTE:

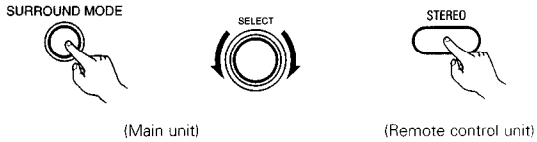
- Note that noise will be output when CDs or LDs recorded in DTS format are played in the "PCM" (exclusive PCM signal playback) or "ANALOG" (exclusive PCM signal playback) mode. Select the AUTO or DTS mode when playing signals recorded in DTS.

Notes on playing a source encoded with DTS

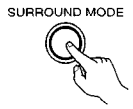
- **Noise may be generated at the beginning of playback and while searching during DTS playback in the AUTO mode. If so, play in the DTS mode.**
- **In some rare cases the noise may be generated when you preform the operation to stop playback of a DTS-CD or DTS-LD.**

3 Select the play mode.
Press the SURROUND MODE button, then turn the SELECT knob.

Example: Stereo

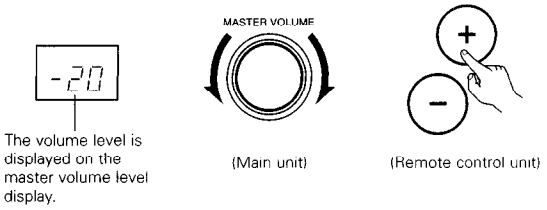


※ To select the surround mode while adjusting the surround parameters, channel volume or tone control, press the surround mode button then operate the selector.



4 Start playback on the selected component.
- For operating instructions, refer to the component's manual.

5 Adjust the volume.

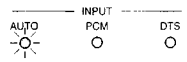


※ The volume can be adjusted within the range of –70 to 0 to 18 dB, in steps of 1 dB. However, when the channel level is set as described on page 41, if the volume for any channel is set at +1 dB or greater, the volume cannot be adjusted up to 18 dB. (In this case the maximum volume is adjusted to "18 dB — (Maximum value of channel level)".)

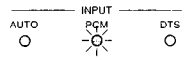
Input mode when playing DTS sources
- Noise will be output if DTS-compatible CDs or LDs are played in the "ANALOG" or "PCM" mode.
  When playing DTS-compatible sources, be sure to connect the source component to the digital input jacks (OPTICAL/COAXIAL) and set the input mode to "DTS".

Input mode display

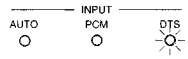
- In the AUTO mode



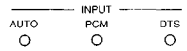
- In the DIGITAL PCM mode



- In the DIGITAL DTS mode



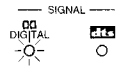
- In the ANALOG mode



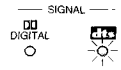
One of these lights, depending on the input signal.

Input signal display

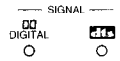
- DOLBY DIGITAL



- DTS



- PCM



※ The DIGITAL indicator lights when digital signals are being input properly. If the DIGITAL indicator does not light, check whether the digital input component setup (page 24) and connections are correct and whether the component's power is turned on.

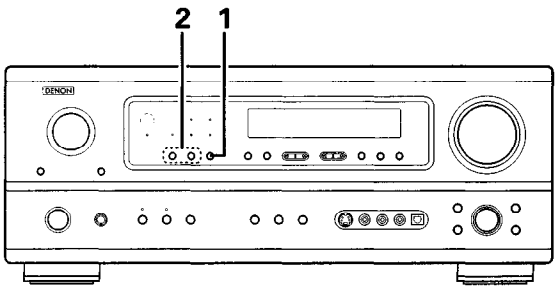
NOTE:
- The DIGITAL indicator will light when playing CD-ROMs containing data other than audio signals, but no sound will be heard.

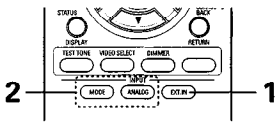
Playback using the external input (EXT. IN) jacks

1 Set the external input (EXT. IN) mode.
Press the EXT. IN to switch the external input.

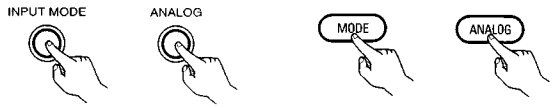
(Main unit) (Remote control unit)

Once this is selected, the input signals connected to the FL (front left), FR (front right), C (center), SL (surround left), and SR (surround right) channels of the EXT. IN jacks are output directly to the front (left and right), center, surround (left and right) speaker systems without passing through the surround circuitry.
In addition, the signal input to the SW (subwoofer) jack is output to the PRE OUT SUBWOOFER jack.





2 Cancelling the external input mode
To cancel the external input (EXT. IN) setting, press the INPUT MODE (AUTO, PCM, DTS) or ANALOG button to switch to the desired input mode. (See page 33.)



(Main unit) (Remote control unit)

- When the input mode is set to the external input (EXT. IN), the play mode (DIRECT, STEREO, DOLBY/DTS SURROUND, 5CH/6CH STEREO or DSP SIMULATION) cannot be selected.

NOTES:
- In play modes other than the external input mode, the signals connected to EXT. IN jacks cannot be played. In addition, signals cannot be output from channels not connected to the input jacks.
- The external input mode can be set for any input source. To watch video while listening to sound, select the input source to which the video signal is connected, then set this mode.

After starting playback

[1] Adjusting the sound quality (tone)
The tone control function will not work in the direct mode.

1 The tone switches as follows each time the TONE CONTROL button is pressed.

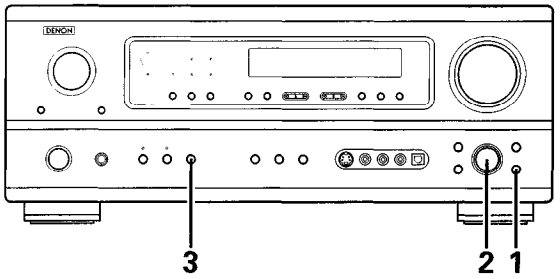
(Main unit)

BASS ←→ TREBLE

2 With the name of the volume to be adjusted selected, turn the SELECT knob to adjust the level.

(Main unit)

- To increase the bass or treble: Turn the control clockwise. (The bass or treble sound can be increased to up to +12 dB in steps of 2 dB.)
- To decrease the bass or treble: Turn the control counterclockwise. (The bass or treble sound can be decreased to up to −12 dB in steps of 2 dB.)



3 If you do not want the bass and treble to be adjusted, turn on the tone defeat mode.

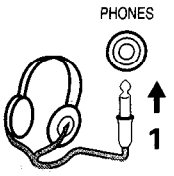
(Main unit)

※ The signals do not pass through the bass and treble adjustment circuits, so it provides higher quality sound.

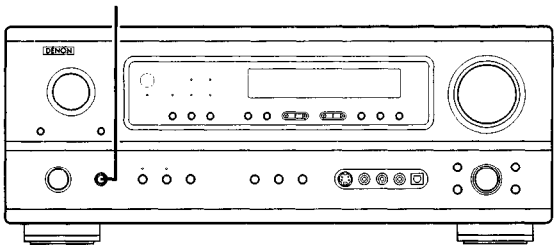
[2] Listening over headphones

1 Plug the headphones' plug into the jack.

※ Connect the headphones to the PHONES jack.
The pre-out output (including the speaker output) is automatically turned off when headphones are connected.



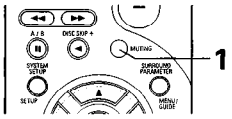
NOTE:
To prevent hearing loss, do not raise the volume level excessively when using headphones.



[3] Turning the sound off temporarily (muting)

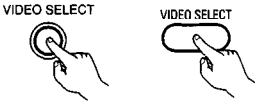
1 Use this to turn off the audio output temporarily.
Press the MUTING button.

※ Cancelling MUTING mode.
- Press the MUTING button again.
- Muting will also be cancelled when MASTER VOL is adjusted up or down.



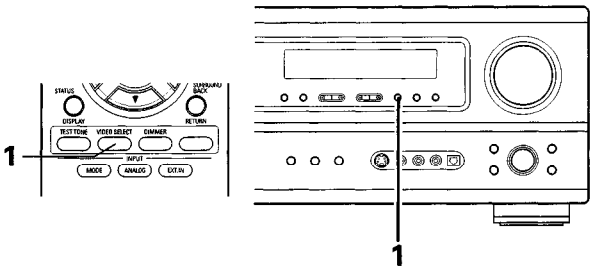
[4] Combining the currently playing sound with the desired image

1 Simulcast playback
Use this switch to monitor a video source other than the audio source.
Press the VIDEO SELECT button repeatedly until the desired source appears on the display.



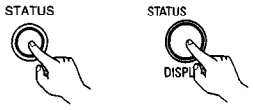
(Main unit) (Remote control unit)

※ Cancelling simulcast playback.
- Select "SOURCE" using the video select button.
- Switch the program source to the component connected to the video input jacks.

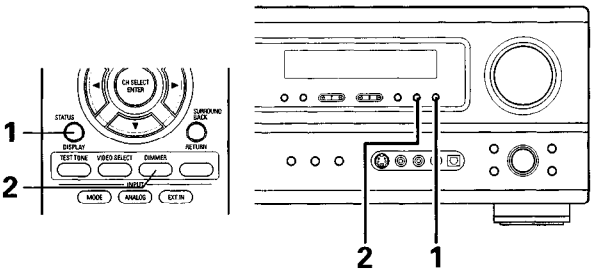


[5] Checking the currently playing program source, etc.

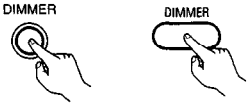
1 Front panel display
- Descriptions of the unit's operations are also displayed on the front panel display. In addition, the display can be switched to check the unit's operating status while playing a source by pressing the STATUS button.



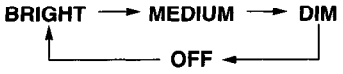
(Main unit) (Remote control unit)



2 Using the dimmer function
- Use this to change the brightness of the display. The display brightness changes in four steps (bright, medium, dim and off) by pressing the main unit's DIMMER button repeatedly.



(Main unit) (Remote control unit)



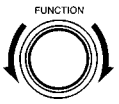
Multi-source recording

Playing one source while recording another (REC OUT mode)

1 Press the ZONE2/REC button.

(Main unit)

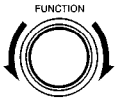
2 With "RECOUT SOURCE" displayed, turn the FUNCTION knob to select the source you wish to record.
- The "REC" indicator and the indicator of the selected source light.



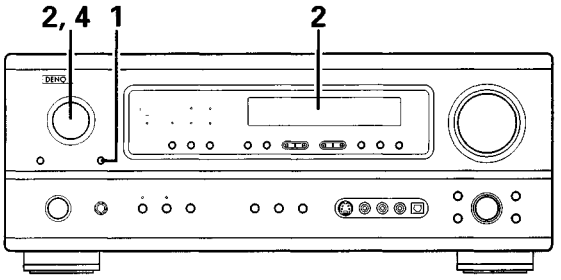
(Main unit)

3 Set the recording mode.
- For operating instructions, refer to the manual of the component on which you want to record.

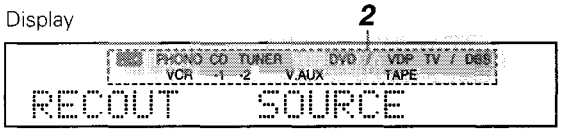
4 To cancel, turn the function knob and select "SOURCE".
- When "SOURCE" is selected, the "REC" indicator turns off.



(Main unit)



Display



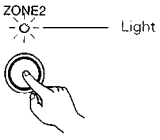
NOTES:
- Recording sources other than digital inputs selected in the REC OUT mode are also output to the multi source audio output jacks.
- Digital signals are not output from the REC SOURCE or audio output jacks.

13 MULTI ZONE

Multi-source playback

[1] Outputting a program source to an amplifier, etc., in a different room (ZONE2 mode)

1 Press the ZONE2 button.

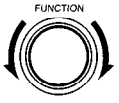


(Main unit)

2 Press the ZONE2/REC button.
The display switches as follows each time the button is pressed.

(Main unit)

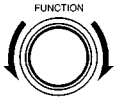
3 With "ZONE2 SOURCE" displayed, turn the FUNCTION knob and select the source you wish to record.
- The "MULTI" indicator and the indicator of the selected source light.



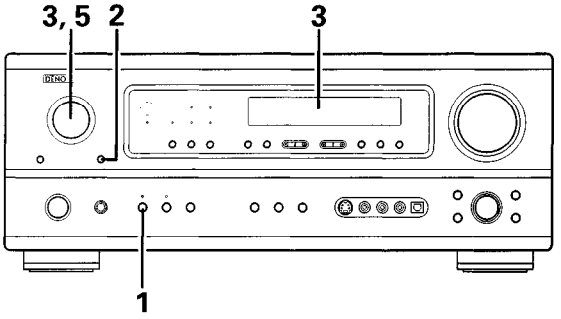
(Main unit)

4 Start playing the source to be output.
- For operating instructions, refer to the manuals of the respective components.

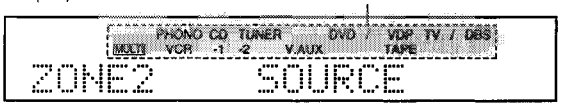
5 To cancel, turn the function knob and select "SOURCE".
- When "SOURCE" is selected, the "MULTI" indicator turns off.



(Main unit)



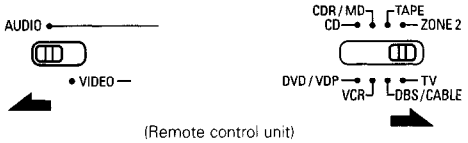
Display



NOTES:
- The signals of the source selected in the ZONE2 mode are also output from the VCR-1, VCR-2 and CDR/TAPE recording output terminals.
- Digital signals are not output from the ZONE2 output jacks.

[2] Remote control unit operations during multi-source playback (selecting the source)

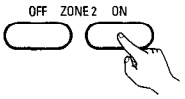
1 Set the slide switch to "AUDIO" and "ZONE2".



(Remote control unit)

2 Press the ZONE2 "ON" button.

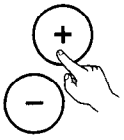
※ To cancel the ZONE2 mode.
Press the ZONE2 "OFF" button.



(Remote control unit)

3 Press the input source button
• The ZONE2 source switches directly.

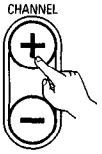
4 The output level of the ZONE 2 SPEAKER OUT terminals can be controlled using the VOLUME + and - buttons on the remote control unit.



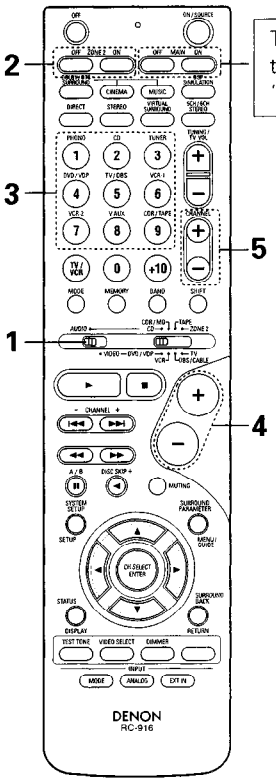
(Remote control unit)

※ DEFAULT SETTING (ZONE2 VOLUME LEVEL) :
- - - dB (MINIMUM)

5 When the ZONE2 SOURCE function is set to TUNER, the preset channel can be selected using the CHANNEL + and - buttons on the remote control unit.
(This is only possible when the main unit in the ZONE2 mode.)



(Remote control unit)



The main zone output can be turned on and off with the "MAIN ON/OFF" button.

Multi-zone playback with multi-source

MULTI ZONE MUSIC ENTERTAINMENT SYSTEM

- When the outputs of the "ZONE2" OUT terminals are wired and connected to integrated amplifiers installed in other rooms, different sources can be played in rooms other than the main zone in which this unit and the playback devices are installed. (Refer to ZONE2 on the diagram below.)
- ZONE2 SPEAKER OUT can be used when "ZONE2" is set to ZONE2 mode at the rear "POWER AMP ASSIGN" switch. In this case, Surround Back Speaker OUT cannot used for MAIN ZONE.
- When a sold separately room-to-room remote control unit (DENON RC-616, 617 or 618) is wired and connected between the main zone and zone2, the remote-controllable devices in the main zone can be controlled from zone2 using the remote control unit.

NOTES:

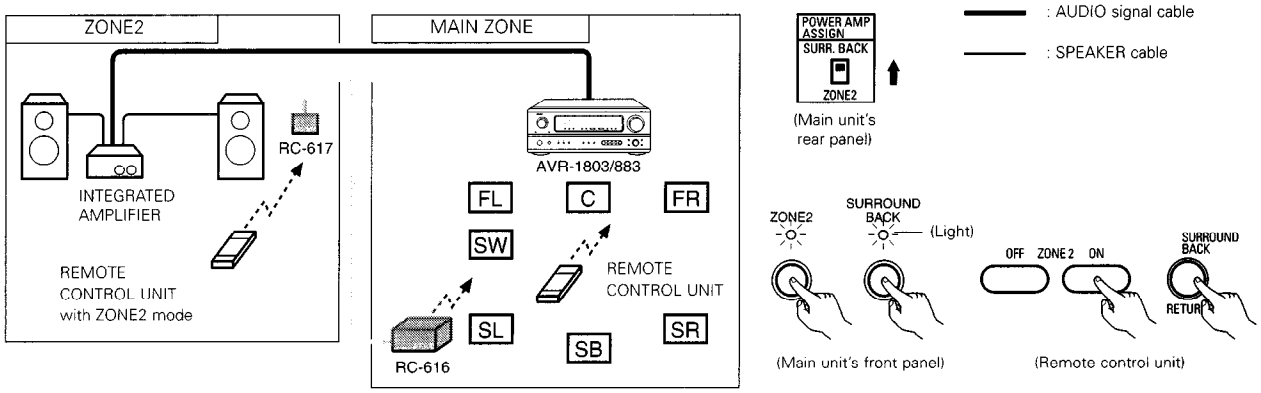
- For the AUDIO outputs, use high quality pin-plug cords and wire in such a way that there is no humming or noise.
- For instructions on installation and operation of separately sold devices, refer to the devices' operating instructions.
- When the main unit is set to the recording output mode, zone2 remote control key cannot be operated.

POWER AMP ASSIGN switch...Set this to switch the surround back channel's power amplifier for use for the zone2. (main unit) (See pge 4)
SURROUND BACK button .....Operate the surround back button to switch surround back channel ON/OFF. (main unit and remote control unit)
ZONE2 button .....Operate the zone2 button to switch zone2 line out and speaker out ON/OFF.(main unit and remote control unit)

■ MULTI ZONE MUSIC ENTERTAINMENT SYSTEM (When using LINE OUT)

"POWER AMP ASSIGN" switch is SURR. BACK position.

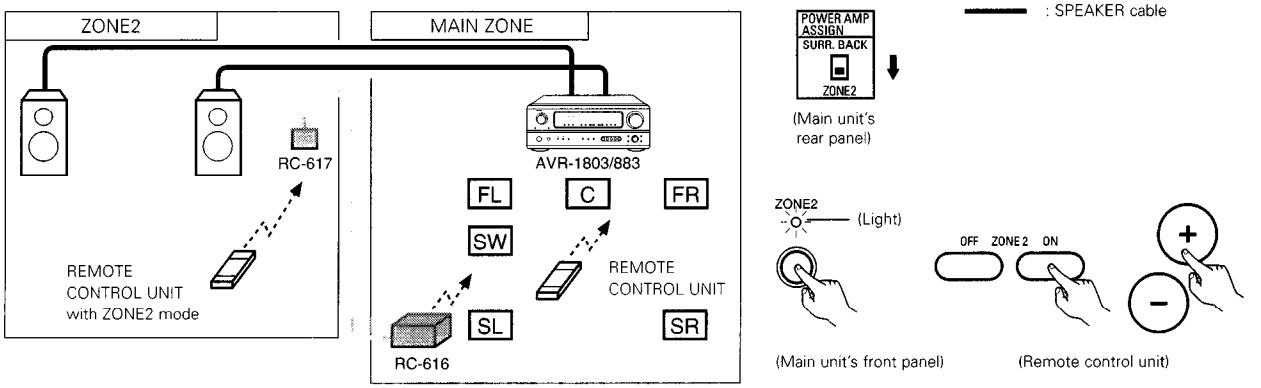
- 6.1-channel playback using the surround back speaker is possible in the MAIN ZONE.
- To use the surround back speaker, turn on the SURROUND BACK button.
- To use the ZONE2 line output, turn on the ZONE2 button.
- The ZONE2 OUT terminal's output level cannot be adjusted with the remote control unit.



■ MULTI ZONE MUSIC ENTERTAINMENT SYSTEM (When using SPEAKER OUT)

"POWER AMP ASSIGN" switch is ZONE2 position.

- The SPEAKER OUT and LINE OUT terminals can be used simultaneously in ZONE2.
- To use the zone 2 line output and speaker output, turn on the ZONE2 button.
- The output of the ZONE2 SPEAKER OUT terminals can be adjusted with the remote control unit's ZONE2 VOLUME + and – keys.
- The SURROUND BACK button on the front panel cannot be used.



14 SURROUND

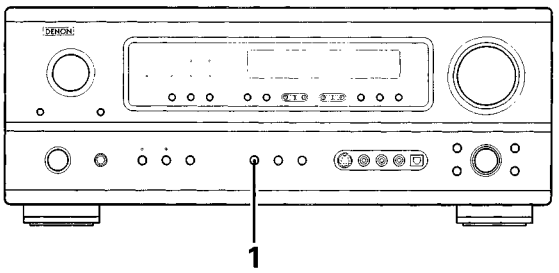
Before playing with the surround function

- Before playing with the surround function, be sure to use the test tones to adjust the playback level from each speakers. This adjustment can be performed from the remote control unit, as (described) below.
- The adjustment with the test tones is only effective in the DOLBY/DTS SURROUND modes.
  The adjusted playback levels for the different surround modes are automatically stored in the memory of each surround modes.

1 Set the DOLBY/DTS SURROUND (Dolby Pro Logic II or Dolby Digital or DTS) modes.

(Main unit)

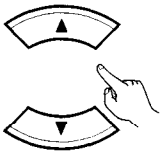
(Remote control unit)



2 Press the TEST TONE button.

(Remote control unit)

Test tones are output from the different speakers. Use the channel volume adjust buttons to adjust so that the volume of the test tones is the same for all the speakers.

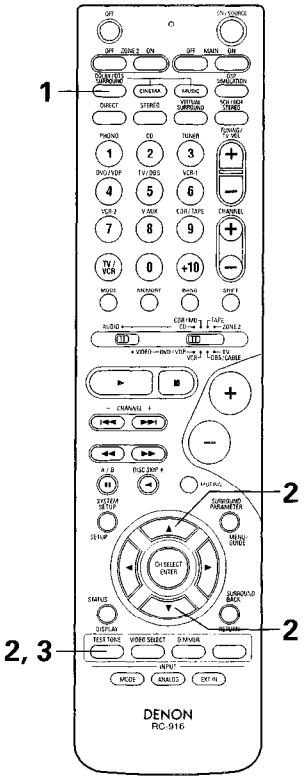


(Remote control unit)

NOTE: Please make sure the "AUDIO" position of the slide switch on the remote control unit.

3 After completing the adjustment, press the TEST TONE button again.

(Remote control unit)



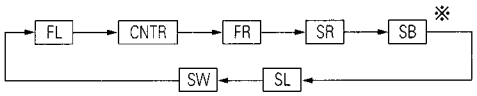
- After adjusting using the test tones, adjust the channel levels either according to the playback sources or to suit your tastes, as (described) below.

1 Select the speaker whose level you want to adjust.

(Main unit)

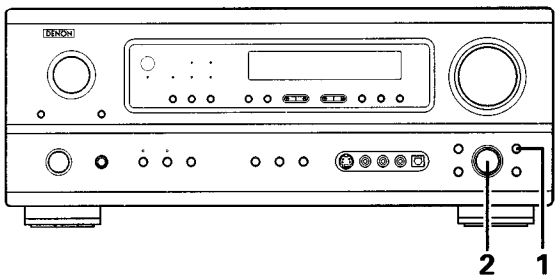
(Remote control unit)

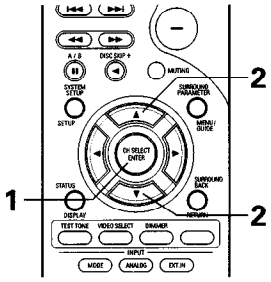
The channel switches as shown below each time the button is pressed.



※ "SB" appears only when "POWER AMP ASSIGN" switch is SURR. BACK position.

NOTE: Please make sure the "AUDIO" position of the slide switch on the remote control unit.

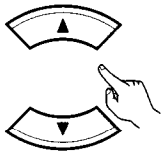




2 Adjust the level of the selected speaker.

(Main unit)

Only adjustable when the channel is selected with the CH VOL buttons on the main unit.



(Remote control unit)

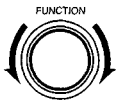
※ Default setting of channel level is 0 dB.
※ The level of the selected speaker can be adjusted within the range of +12 to –12 dB using the SELECT knob or cursor buttons.
※ SW channel level can be turned off by decreasing one step from -12 dB.

OFF ↔ -12 dB ↔ 12 dB

Dolby Surround Pro Logic II mode

1 Select the function to which the component you want to play is connected.

Example:



(Main unit)

(Remote control unit)

2 Select the Dolby Surround Pro Logic II mode.

(Main unit)

(Remote control unit)

- The Dolby Pro Logic indicator lights.

Display

DOLBY PLIIcinema

↓

PLII C DVD

Light

DD PRO LOGIC

3 Play a program source with the DD DOLBY SURROUND mark.
- For operating instructions, refer to the manuals of the respective components.

4 Select the surround parameter mode.

(Main unit)

(Remote control unit)

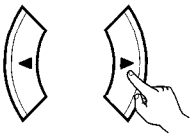
Display

MODE cinema

※ To perform this operation from the remote control unit, check that the mode selector switch is set to "AUDIO".

5 Select the optimum mode for the source.

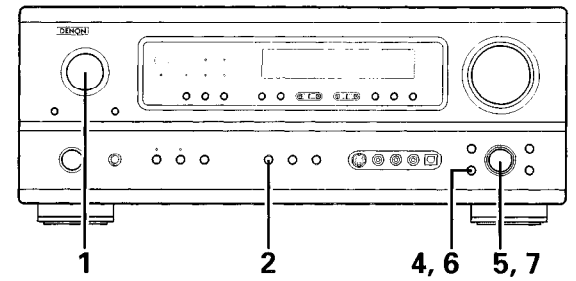
(Main unit)

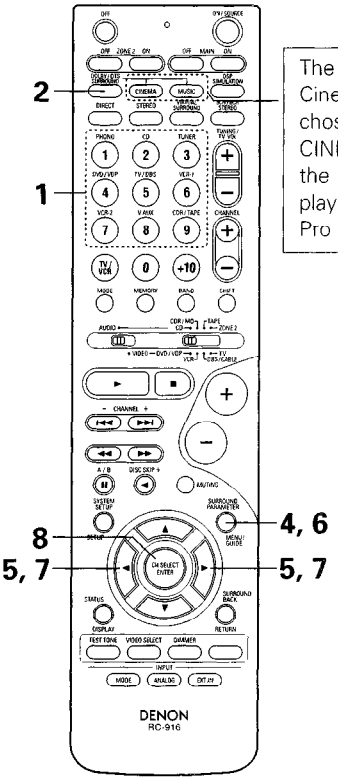


(Remote control unit)

MODE emulation | MODE cinema | MODE music

◀ or ▶ ▶ or ◀





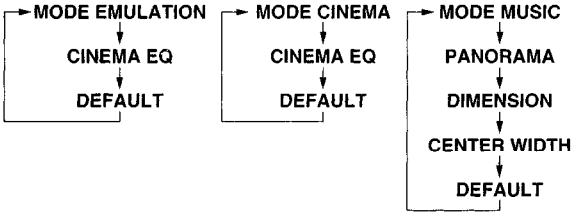
The Dolby Surround Pro Logic II Cinema or Music mode can be chosen directly by pressing the CINEMA or MUSIC button on the remote control unit during playback in the Dolby Surround Pro Logic II mode.

6 Set the surround parameters according to the mode.

(Main unit)

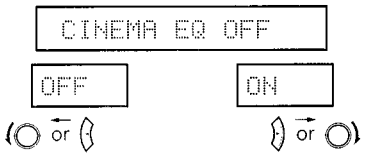
(Remote control unit)

- The mode switches as shown below each time the button is pressed.

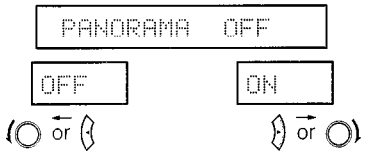


7 Set the various surround parameters.

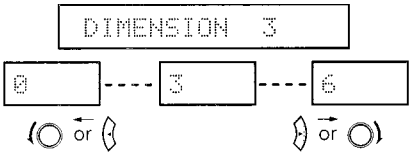
- **CINEMA EQ setting**



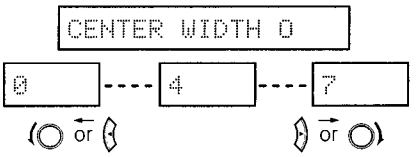
- **PANORAMA setting**



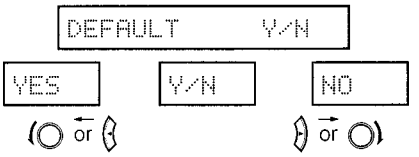
- **DIMENSION setting**



- **CENTER WIDTH setting**



- **DEFAULT setting**



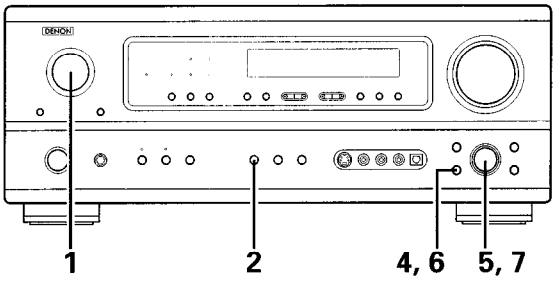
※ Select "Yes" to reset to the factory defaults.

8 Press the ENTER button to finish surround parameter mode.

(Remote control unit)

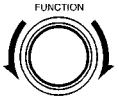
NOTE:
- When making parameter settings, the display will return to the regular condition several seconds after the last button was pressed and the setting will be completed.

DTS NEO:6 mode



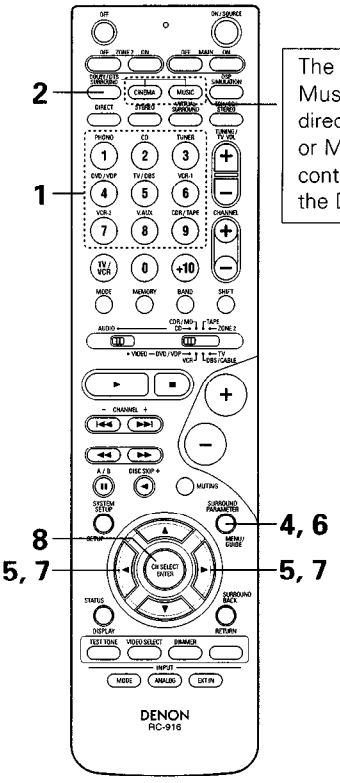
1 Select the function to which the component you want to play is connected.

Example:



(Main unit)

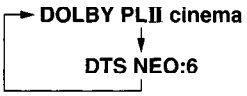
(Remote control unit)



The DTS NEO:6 Cinema or Music mode can be chosen directly by pressing the CINEMA or MUSIC button on the remote control unit during playback in the DTS NEO:6 mode.

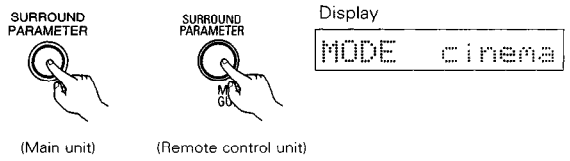
2 Select the DTS NEO:6 mode.

- The mode switches as shown below each time the button is pressed.



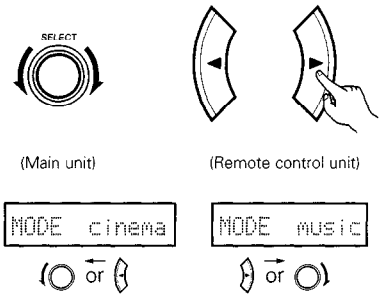
3 Play a program source.

4 Select the surround parameter mode.

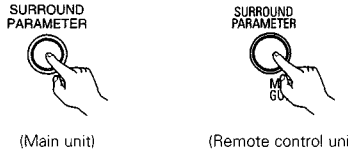


※ To perform this operation from the remote control unit, check that the mode selector switch is set to "AUDIO".

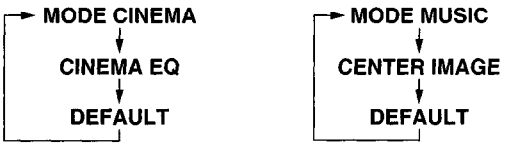
5 Select the optimum mode for the source.



6 Set the surround parameters according to the mode.

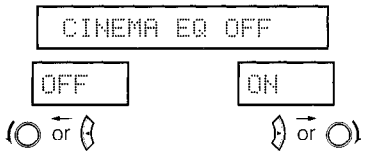


- The mode switches as shown below each time the button is pressed.

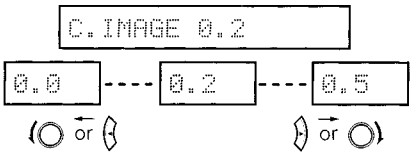


7 Set the various surround parameters.

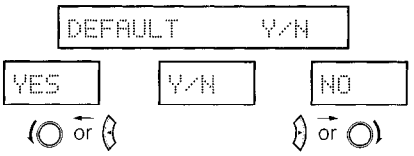
- **CINEMA EQ setting**



- **CENTER IMAGE setting**



- **DEFAULT setting**



※ Select "Yes" to reset to the factory defaults.

8 Press the ENTER button to finish surround parameter mode.

(Remote control unit)

Surround parameters ①

Pro Logic II Mode:

The Cinema mode is for use with stereo television shows and all programs encoded Dolby Surround.

The Music mode is recommended as the standard mode for autosound music systems (no video), and is optional for A/V systems.

The Pro Logic Emulation mode offers the same robust surround processing as original Pro Logic in case the source contents is not of optimum quality.

Select one of the modes ("cinema", "music" or "emulation").

Panorama Control:

This mode extends the front stereo image to include the surround speakers for an exciting "wraparound" effect with side wall imaging.

Select "OFF" or "ON".

Dimension Control:

This control gradually adjust the soundfield either towards the front or towards the rear.

The control can be set in 7 steps from 0 to 6.

Center Width Control:

This control adjust the center image so it may be heard only from the center speaker; only from the left/right speakers as a phantom image; or from all three front speakers to varying degrees.

The control can be set in 8 steps from 0 to 7.

DTS NEO:6 MUSIC:

CENTER IMAGE (0.0 to 0.5: default 0.2)

The center image parameter for adjusting the expansion of the center channel in the DTS NEO:6 MUSIC mode has been added.

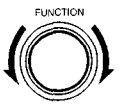
Dolby Digital mode (only with digital input) and DTS Surround (only with digital input)

1 Select the input source.

Playback with a digital input

① Select an input source set to digital (COAXIAL/OPTICAL) (see page 24).

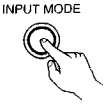
Example:



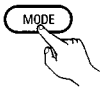
(Main unit)

(Remote control unit)

② Set the input mode to "AUTO" or DTS.



(Main unit)



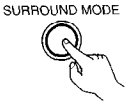
(Remote control unit)

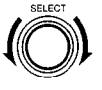
2 Select the Dolby/DTS Surround mode.

(Main unit)

(Remote control unit)

When performing this operation from the main unit's panel, press the SURROUND MODE button, then turn the SELECT knob and select Dolby Pro Logic or DTS NEO:6.

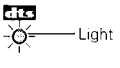




(Main unit)

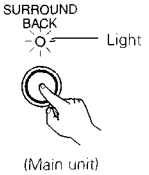
3 Play a program source with the DOLBY DIGITAL, dts mark.

- The Dolby Digital indicator lights when playing Dolby Digital sources.

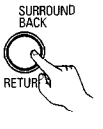


- The DTS indicator lights when playing DTS sources.

Operate the SURROUND BACK button to switch Surround Back CH ON/OFF.



(Main unit)



(Remote control unit)

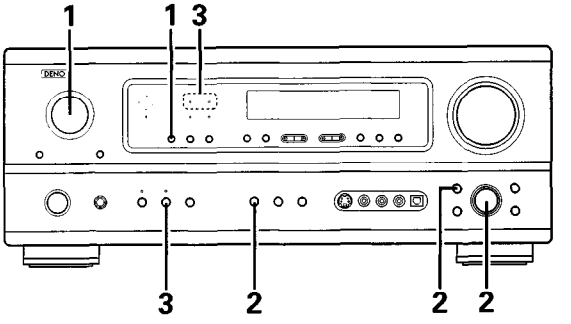
- Lights when the 6.1 Surround mode is on.

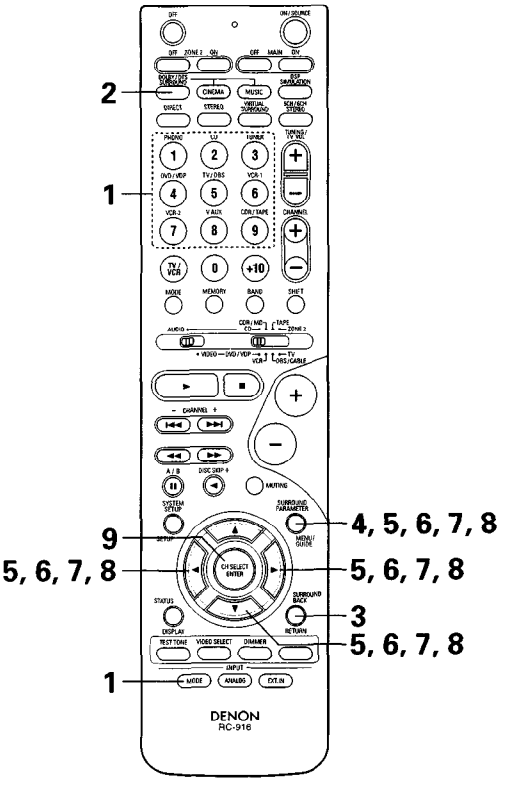
4 Set the surround parameter according to the source. First, press the SURROUND PARAMETER button.

(Remote control unit)

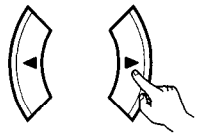
NOTE:

- Please make sure the "AUDIO" position of the slide switch on the remote control unit.





5



(Remote control unit)

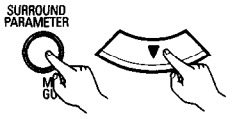
Use the (left) and (right) buttons to set the CINEMA EQ.

CINEMA EQ OFF

(Initial)

OFF | ON

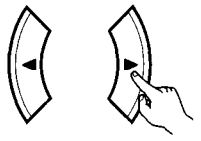
(left) button (right) button



(Remote control unit)

Press the SURROUND PARAMETER or (down) button to switch to the D. COMP. setting.

6



(Remote control unit)

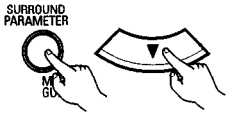
Use the (left) and (right) buttons to set the D. COMP.

D.COMP. OFF

(Initial)

OFF | LOW | MID | HI

(left) button (right) button

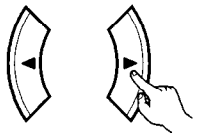


(Remote control unit)

Press the SURROUND PARAMETER or (down) button to switch to the LFE setting.

NOTE:
This parameter is not displayed during DTS playback.

7

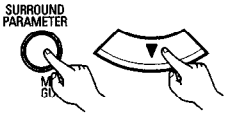


(Remote control unit)

Use the (left) and (right) buttons to set the LFE level.

LFE 0dB

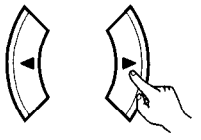
- The level can be adjusted in units of 1 dB from –10 to 0 dB.
  Set to the desired level according to the speaker systems being used and the source to be played.



(Remote control unit)

Press the SURROUND PARAMETER or (down) button to switch to the default setting.

8



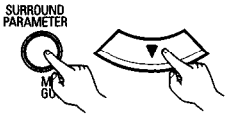
(Remote control unit)

To reset the settings to the factory defaults, use the (left) and (right) buttons to display "Yes".

DEFAULT Y/N

YES | Y/N | NO

(left) button (right) button



(Remote control unit)

Press the SURROUND PARAMETER or (down) button to switch to the CINEMA EQ. setting.

9

(Remote control unit)

Press the ENTER button to finish surround parameter mode.

Surround parameters ②

CINEMA EQ. (Cinema Equalizer):
The Cinema EQ function gently decreases the level of the extreme high frequencies, compensating for overly-bright sounding motion picture soundtracks. Select this function if the sound from the front speakers is too bright.
This function only works in the Dolby Pro Logic, Dolby Digital and DTS Surround modes. (The same contents are set for all operating modes.)

D.COMP. (Dynamic Range Compression):
Motion picture soundtracks have tremendous dynamic range (the contrast between very soft and very loud sounds). For listening late at night, or whenever the maximum sound level is lower than usual, the Dynamic Range Compression allows you to hear all of the sounds in the soundtrack (but with reduced dynamic range). (This only works when playing program sources recorded in Dolby Digital.) Select one of the four parameters ("OFF", "LOW", "MID" (middle) or "HI" (high)). Set to OFF for normal listening.

LFE (Low Frequency Effect):
This sets the level of the LFE (Low Frequency Effect) sounds included in the source when playing program sources recorded in Dolby Digital or DTS.
If the sound produced from the subwoofer sounds distorted due to the LFE signals when playing Dolby Digital or DTS sources when the peak limiter is turned off with the subwoofer peak limit level setting (system setup menu), adjust the level as necessary.
Program source and adjustment range:
1. Dolby Digital: –10 dB to 0 dB
2. DTS Surround: –10 dB to 0 dB

※ When DTS encoded movie software is played, it is recommended that the LFE LEVEL be set to 0 dB for correct DTS playback.
※ When DTS encoded music software is played, it is recommended that the LFE LEVEL be set to –10 dB for correct DTS playback.

SB CH OUT (Surround Back):
(1) Dolby Digital/DTS source
"OFF" .....Playback is conducted without using the surround back speaker.
"ON" .....Playback is conducted using the surround back speaker.
(2) Other source
"OFF" .....Playback is conducted without using the surround back speaker.
"ON" .....Playback is conducted using the surround back speaker.

NOTE: This operation can be performed directly using the "SURROUND BACK" button.

15 DSP SURROUND SIMULATION

- This unit is equipped with a high performance DSP (Digital Signal Processor) which uses digital signal processing to synthetically recreate the sound field. One of 7 preset surround modes can be selected according to the program source and the parameters can be adjusted according to the conditions in the listening room to achieve a more realistic, powerful sound. These surround modes can also be used for program sources not recorded in Dolby Surround Pro Logic, Dolby Digital or DTS.

Surround modes and their features

1	5CH/6CH STEREO	In this mode, the signals of the front left channel are output from the left surround channel, the signals of the front right channel are output from the right surround channel, and the same (in-phase) component of the left and right channels is output from the center channel. This mode provides all speaker surround sound, but without directional steering effects, and works with any stereo program source.
2	MONO MOVIE (NOTE 1)	Select this when watching monaural movies for a greater sense of expansion.
3	ROCK ARENA	Use this mode to achieve the feeling of a live concert in an arena with reflected sounds coming from all directions.
4	JAZZ CLUB	This mode creates the sound field of a live house with a low ceiling and hard walls. This mode gives jazz a very vivid realism.
5	VIDEO GAME	Use this to enjoy video game sources.
6	MATRIX	Select this to emphasize the sense of expansion for music sources recorded in stereo. Signals consisting of the difference component of the input signals (the component that provides the sense of expansion) processed for delay are output from the surround channel.
7	VIRTUAL	Select this mode to enjoy a virtual sound field, produced from the front 2-channel speakers or headphones.

※ Depending on the program source being played, the effect may not be very noticeable.
In this case, try other surround modes, without worrying about their names, to create a sound field suited to your tastes.

NOTE 1: When playing sources recorded in monaural, the sound will be one-sided if signals are only input to one channel (left or right), so input signals to both channels. If you have a source component with only one audio output (monophonic camcorder, etc.) obtain a "Y" adapter cable to split the mono output to two outputs, and connect to the L and R inputs.

NOTE:
DIRECT, STEREO and 5CH/6CH STEREO mode can be used when playing PCM signals with a sampling frequency of 96 kHz (such as from DVD-Video discs that contain 24 bit, 96 kHz audio). If such signals are input during playback in the other surround modes, the mode automatically switches to STEREO.

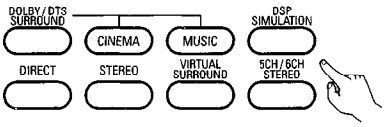
Personal Memory Plus
This set is equipped with a personal memorize function that automatically memorizes the surround modes and input modes selected for the input different sources. When the input source is switched, the modes set for that source last time it was used are automatically recalled.

※ The surround parameters, tone control settings and playback level balance for the different output channels are memorized for each surround mode.

DSP surround simulation

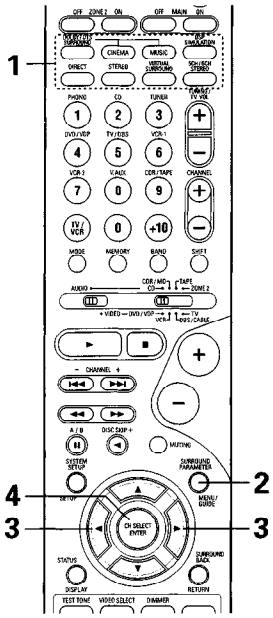
- To operate the surround mode and surround parameters from the remote control unit.

1 Select the surround mode for the input channel.



(Remote control unit)

The surround mode switches in the following order each time the DSP SIMULATION button is pressed:

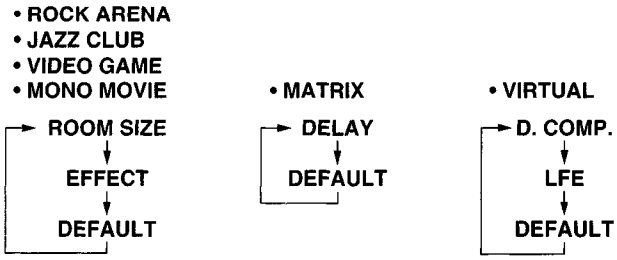


2

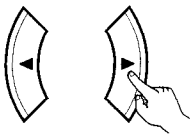
(Remote control unit)

To enter the surround parameter setting mode, press the SURROUND PARAMETER button.

- The surround parameter switches in the following order each time the SURROUND PARAMETER button is pressed for the different surround modes.



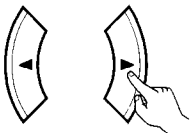
3



(Remote control unit)

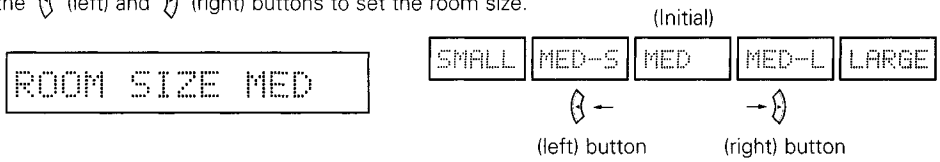
Display the parameter you want to adjust, then use the ◁ (left) and ▷ (right) buttons to set it.

(1) ROOM SIZE

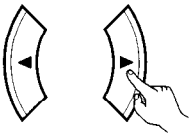


(Remote control unit)

Use the ◁ (left) and ▷ (right) buttons to set the room size.

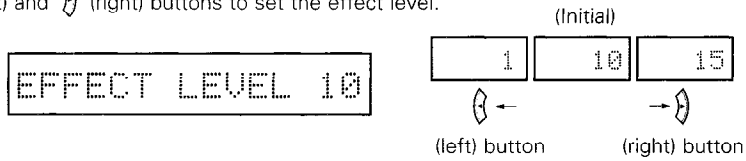


(2) EFFECT LEVEL

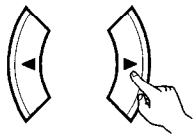


(Remote control unit)

Use the ◁ (left) and ▷ (right) buttons to set the effect level.



(3) DELAY TIME



(Remote control unit)

Use the ◄ (left) and ► (right) buttons to set the delay time.

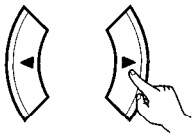
DELAY 30ms

(Initial)

0ms	30ms	110ms

◄ (left) button ► (right) button

(4) D. COMP.



(Remote control unit)

Use the ◄ (left) and ► (right) buttons to set the D. COMP.

D.COMP. OFF

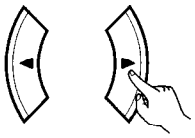
(Initial)

OFF	LOW	MID	HI

◄ (left) button ► (right) button

NOTE:
This parameter is displayed during DOLBY DIGITAL playback.

(5) LFE



(Remote control unit)

Use the ◄ (left) and ► (right) buttons to set the LFE level.

LFE 0dB

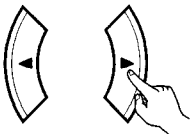
(Initial)

-10dB	0dB

◄ (left) button ► (right) button

NOTE:
This parameter is displayed during DOLBY DIGITAL and DTS playback.

(6) DEFAULT



(Remote control unit)

To reset the settings to the factory defaults, use the ◄ (left) and ► (right) buttons to display "Yes".

DEFAULT Y/N

YES	Y/N	NO

◄ (left) button ► (right) button

4

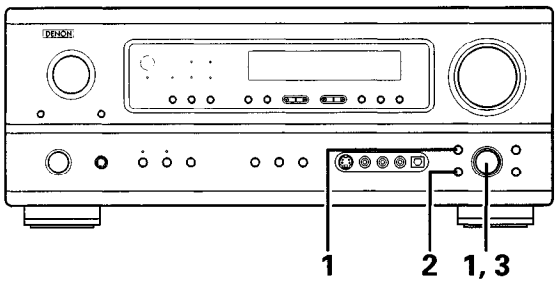
(Remote control unit)

Press the ENTER button to finish surround parameter mode.

- Operating the surround mode and surround parameters from the main unit's panel.

1 Turn the SELECT knob to select the surround mode.

(Main unit)



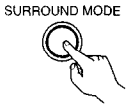
- When turned clockwise

DIRECT → STEREO → DOLBY PRO LOGIC II → DTS NEO:6 → 5CH/6CH STEREO → MONO MOVIE → ROCK ARENA → JAZZ CLUB → VIDEO GAME → MATRIX → VIRTUAL SURROUND → DIRECT

- When turned counterclockwise

DIRECT → VIRTUAL SURROUND → MATRIX → VIDEO GAME → JAZZ CLUB → ROCK ARENA → MONO MOVIE → 5CH/6CH STEREO → DTS NEO:6 → DOLBY PRO LOGIC II → STEREO → DIRECT

※ To select the surround mode while adjusting the surround parameters, channel volume or tone control, press the SURROUND MODE button then operate the selector.



(Main unit)

2 Press the SURROUND PARAMETER button.
Press and hold in the surround parameter button to select the parameter you want to set.
- The parameters which can be set differ for the different surround modes. (Refer to "Surround Modes and Parameters" on page 52.

(Main unit)

3 Display the parameter you want to adjust, then turn the SELECT knob to set it.

NOTE:
- When playing PCM digital signals or analog signals in the 5CH/6CH STEREO, ROCK ARENA, JAZZ CLUB, VIDEO GAME, MONO MOVIE or MATRIX surround modes and the input signal switches to a digital signal encoded in Dolby Digital, the Dolby surround mode switches automatically. When the input signal switches to a DTS signal, the mode automatically switches to DTS surround.
- When the "5CH/6CH STEREO" mode is selected, the display differs according to the Surround Back CH ON/OFF.
  Surround Back CH ON: 6CH STEREO
  Surround Back CH OFF: 5CH STEREO

Surround parameters ③

ROOM SIZE:
This sets the size of the sound field.
There are five settings: "small", "med.s" (medium-small), "medium", "med.l" (medium-large) and "large". "small" recreates a small sound field, "large" a large sound field.

EFFECT LEVEL:
This sets the strength of the surround effect.
The level can be set in 15 steps from 1 to 15. Lower the level if the sound seems distorted.

DELAY TIME:
In the matrix mode only, the delay time can be set within the range of 0 to 110 ms.

■ Surround modes and parameters

Mode	Channel output					When playing Dolby Digital signals	When playing DTS signals	When playing PCM signals (96k)	When playing ANALOG signals
	FRONT L/R	CENTER	SURROUND L/R	SURROUND BACK	SUB-WOOFER				
DIRECT	○	×	×	×	◎	○	○	○ (○)	○
STEREO	○	×	×	×	◎	○	○	○ (○)	○
EXTERNAL INPUT	○	◎	◎	◎	◎	×	×	×	○
DOLBY PRO LOGIC II	○	◎	◎	◎	◎	○ *	×	○	○
DTS NEO:6	○	◎	◎	◎	◎	×	○	○	○
DOLBY DIGITAL	○	◎	◎	◎	◎	○	×	×	×
DTS SURROUND	○	◎	◎	◎	◎	×	○	×	×
5CH/6CH STEREO	○	◎	◎	◎	◎	×	×	○ (○)	○
ROCK ARENA	○	◎	◎	◎	◎	×	×	○	○
JAZZ CLUB	○	◎	◎	◎	◎	×	×	○	○
VIDEO GAME	○	◎	◎	◎	◎	×	×	○	○
MONO MOVIE	○	◎	◎	◎	◎	×	×	○	○
MATRIX	○	◎	◎	◎	◎	×	×	○	○
VIRTUAL	○	×	×	×	◎	○	○	○	○

○ : Signal
× : No signal
◎ : Turned on or off by speaker configuration setting

○ : Able
× : Unable

* Only for 2 ch contents.

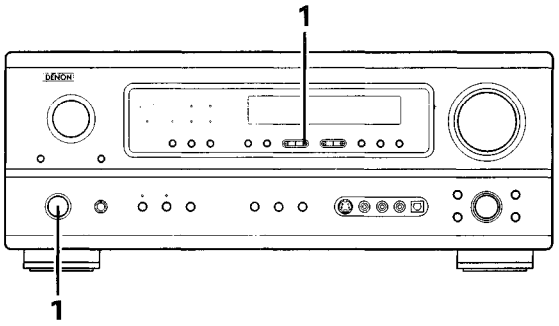
Mode	Parameter (default values are shown in parentheses)												
		SURROUND PARAMETER				PRO LOGIC II MUSIC MODE ONLY			NEO:6 MUSIC MODE ONLY		Dolby Digital signals		DTS signals
	TONE CONTROL	ROOM SIZE	EFFECT LEVEL	DELAY TIME	MODE	PANORAMA	DIMENSION	CENTER WIDTH	CENTER IMAGE	CINEMA EQ	D COMP	LFE	LFE
DIRECT	×	×	×	×	×	×	×	×	×	×	○ (OFF)	○ (0dB)	○ (0dB)
STEREO	○ (0dB)	×	×	×	×	×	×	×	×	×	○ (OFF)	○ (0dB)	○ (0dB)
EXTERNAL INPUT	○ (0dB)	×	×	×	×	×	×	×	×	×	×	×	×
DOLBY PRO LOGIC II	○ (0dB)	×	×	×	○ (CINEMA)	○ (OFF)	○ (3)	○ (0)	×	○ (OFF)	○ (OFF)	○ (0dB)	–
DTS NEO:6	○ (0dB)	×	×	×	○ (CINEMA)	–	–	–	○ (0.2)	○ (OFF)	–	–	○ (0dB)
DOLBY DIGITAL	○ (0dB)	×	×	×	×	×	×	×	×	○ (OFF)	○ (OFF)	○ (0dB)	–
DTS SURROUND	○ (0dB)	×	×	×	×	×	×	×	×	○ (OFF)	×	–	○ (0dB)
5CH/6CH STEREO	○ (0dB)	×	×	×	×	×	×	×	×	×	×	×	×
ROCK ARENA	○ (0dB)	○ (Medium)	○ (10)	×	×	×	×	×	×	×	×	×	×
JAZZ CLUB	○ (0dB)	○ (Medium)	○ (10)	×	×	×	×	×	×	×	×	×	×
VIDEO GAME	○ (0dB)	○ (Medium)	○ (10)	×	×	×	×	×	×	×	×	×	×
MONO MOVIE	○ (0dB)	○ (Medium)	○ (10)	×	×	×	×	×	×	×	×	×	×
MATRIX	○ (0dB)	×	×	○ (30msec)	×	×	×	×	×	×	×	×	×
VIRTUAL	○ (0dB)	×	×	×	×	×	×	×	×	×	○ (OFF)	○ (0dB)	○

○ : Adjustable
× : Not adjustable

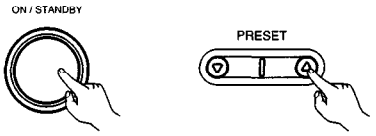
16 LISTENING TO THE RADIO

Auto preset memory

This unit is equipped with a function for automatically searching for FM broadcast stations and storing them in the preset memory.



1 When the main unit's power operation switch turn on while pressing the set's PRESET △ button the unit automatically begins searching for FM broadcast stations.



2 When the first FM broadcast station is found, that station is stored in the preset memory at channel A1. Subsequent stations are automatically stored in order at preset channels A2 to A8, B1 to B8, C1 to C8, D1 to D8 and E1 to E8, for a maximum of 40 stations.

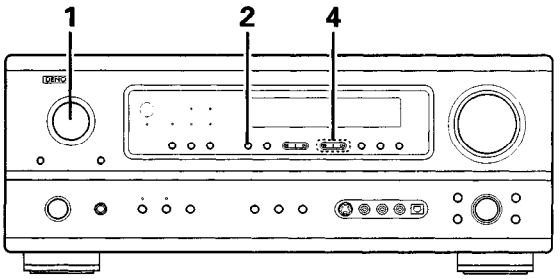
3 Channel A1 is tuned in after the auto preset memory operation is completed.

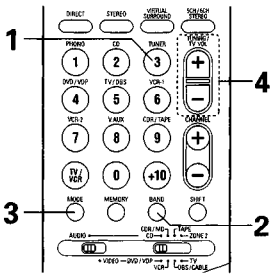
NOTES:
- If an FM station cannot be preset automatically due to poor reception, use the "Manual tuning" operation to tune in the station, then preset it using the manual "Preset memory" operation.
- To interrupt this function, press the power operation button.

■ DEFAULT VALUE

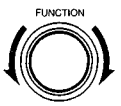
AUTO TUNER PRESETS	
A1 ~ A8	87.5/89.1/98.1/107.9/90.1/90.1/90.1/90.1 MHz
B1 ~ B8	520/600/1000/1400/1500/1710 kHz/90.1/90.1 MHz
C1 ~ C8	90.1 MHz
D1 ~ D8	90.1 MHz
E1 ~ E8	90.1 MHz

Auto tuning

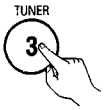




1 Set the input source to "TUNER".



(Main unit)



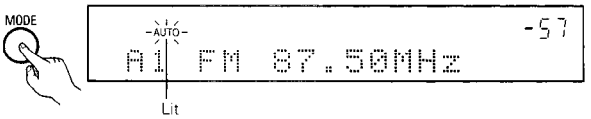
(Remote control unit)

2 Watching the display, press the BAND button to select the desired band (AM or FM).

(Main unit)

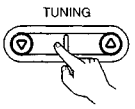
(Remote control unit)

3 Press the MODE button to set the auto tuning mode.



(Remote control unit)

4 Press the TUNING UP or DOWN button.



(Main unit)

(Remote control unit)

- Automatic searching begins, then stops when a station is tuned in.

NOTE:
- When in the auto tuning mode on the FM band, the "STEREO" indicator lights on the display when a stereo broadcast is tuned in. At open frequencies, the noise is muted and the "TUNED" and "STEREO" indicators turn off.

Manual tuning

1 Set the input function to "TUNER".

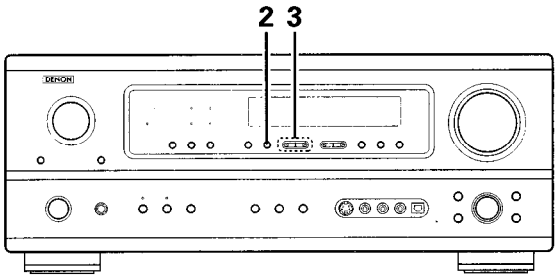
2 Watching the display, press the BAND button to select the desired band (AM or FM).

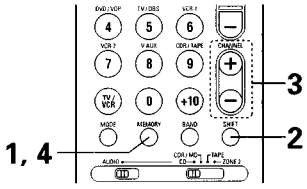
3 Press the MODE button to set the manual tuning mode. Check that the display's "AUTO" indicator turns off.

4 Press the TUNING UP or DOWN button to tune in the desired station.
The frequency changes continuously when the button is held in.

NOTE:
- When the manual tuning mode is set, FM stereo broadcasts are received in monaural and the "STEREO" indicator turns off.

Preset stations





Preparations:
Use the "Auto tuning" or "Manual tuning" operation to tune in the station to be preset in the memory.

1 Press the MEMORY button.

(Remote control unit)

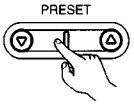
2 Press the SHIFT button and select the desired memory block (A to E).

(Main unit)

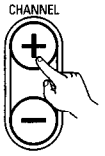
(Remote control unit)

NOTE: Please make sure the "AUDIO" position of the slide switch on the remote control unit.

3 Press the PRESET UP or DOWN button to select the desired preset channel (1 to 8).



(Main unit)



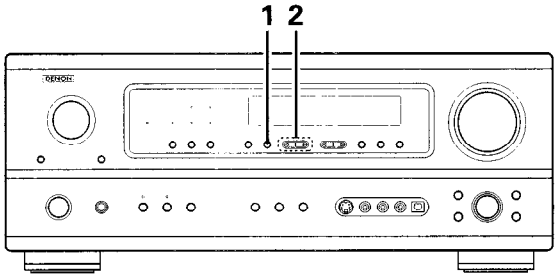
(Remote control unit)

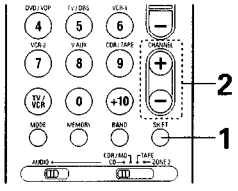
4 Press the MEMORY button again to store the station in the preset memory.

(Remote control unit)

※ To preset other channels, repeat steps 1 to 4.
A total of 40 broadcast stations can be preset – 8 stations (channels 1 to 8) in each of blocks A to E.

Recalling preset stations





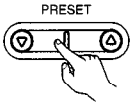
1 Watching the display, press the SHIFT button to select the preset memory block.

(Main unit)

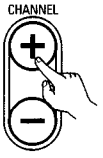
(Remote control unit)

NOTE: Please make sure the "AUDIO" position of the slide switch on the remote control unit.

2 Watching the display, press the PRESET UP or DOWN button to select the desired preset channel.



(Main unit)



(Remote control unit)

17 LAST FUNCTION MEMORY

- This unit is equipped with a last function memory which stores the input and output setting conditions as they were immediately before the power is switched off.
  This function eliminates the need to perform complicated resettings when the power is switched on.
- The unit is also equipped with a back-up memory. This function provides approximately one week of memory storage when the main unit's power switch is off and with the power cord disconnected.

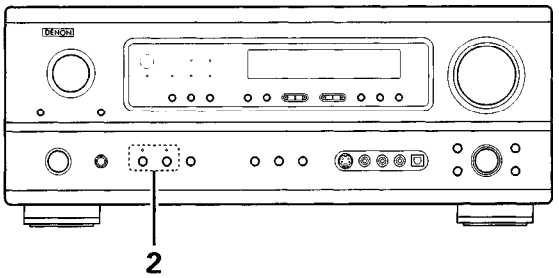
18 INITIALIZATION OF THE MICROPROCESSOR

When the indication of the display is not normal or when the operation of the unit does not shows the reasonable result, the initialization of the microprocessor is required by the following procedure.

1 Switch off the unit and remove the AC cord from the wall outlet.

2 Hold the following ZONE2 button and SURROUND BACK button, and plug the AC cord into the outlet.

3 Check that the entire display is flashing with an interval of about 1 second, and release your fingers from the 2 buttons and the microprocessor will be initialized.



NOTES:
- If step 3 does not work, start over from step 1.
- If the microprocessor has been reset, all the button settings are reset to the default values (the values set upon shipment from the factory).

19 ADDITIONAL INFORMATION

Optimum surround sound for different sources

There are currently various types of multi-channel signals (signals or formats with more than two channels).

■ Types of multi-channel signals

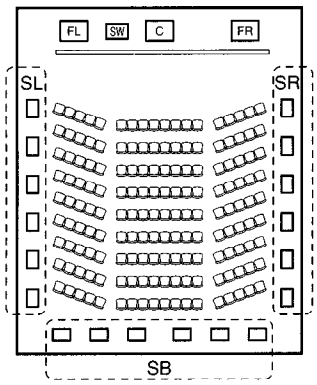
Dolby Digital, Dolby Pro Logic, DTS, high definition 3-1 signals (Japan MUSE Hi-Vision audio), DVD-Audio, SACD (Super Audio CD), MPEG multi-channel audio, etc.

"Source" here does not refer to the type of signal (format) but the recorded content. Sources can be divided into two major categories.

■ Types of sources

- **Movie audio** Signals created to be played in movie theaters. In general sound is recorded to be played in movie theaters equipped with multiple surround speakers, regardless of the format (Dolby Digital, DTS, etc.).

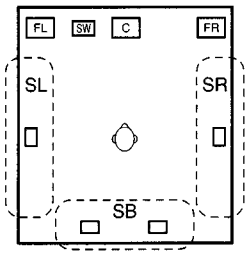
Movie theater sound field



Multiple surround speakers

(For 6.1-channel system)

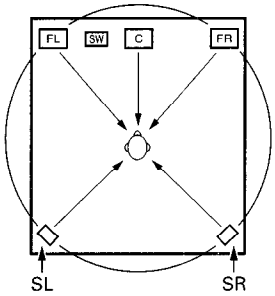
Listening room sound field



In this case it is important to achieve the same sense of expansion as in a movie theater with the surround channels. To do so, in some cases the number of surround speakers is increased (to four or eight) or speakers with bipolar or dipolar properties are used.

SL: Surround L channel
SR: Surround R channel
SB: Surround back channel (1 spkr or 2 spkrs)

- **Other types of audio** These signals are designed to recreate a 360° sound field using three to five speakers.



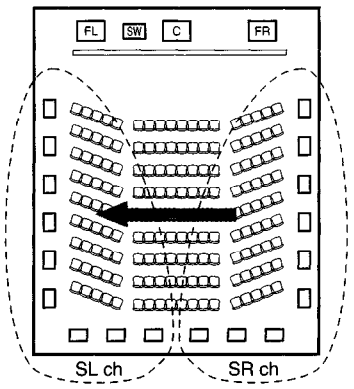
In this case the speakers should surround the listener from all sides to create a uniform sound field from 360°. Ideally the surround speakers should function as "point" sound sources in the same way as the front speakers.

These two types of sources thus have different properties, and different speaker settings, particularly for the surround speakers, are required in order to achieve the ideal sound.

Surround back speakers

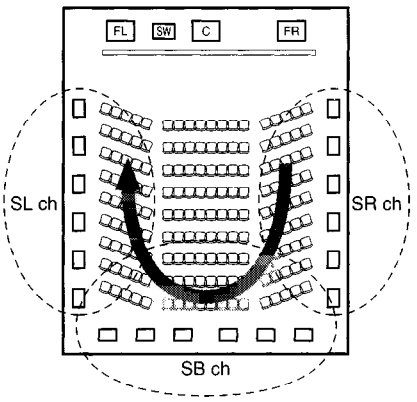
A 6.1-channel system is a conventional 5.1-channel system to which the "surround back" (SB) channel has been added. This makes it easy to achieve sound positioned directly behind the listener, something that was previously difficult with sources designed for conventional multi surround speakers. In addition, the acoustic image extending between the sides and the rear is narrowed, thus greatly improving the expression of the surround signals for sounds moving from the sides to the back and from the front to the point directly behind the listening position.

Change of positioning and acoustic image with 5.1-channel systems



Movement of acoustic image from SR to SL

Change of positioning and acoustic image with 6.1-channel systems



Movement of acoustic image from SR to SB to SL

With this set, speaker(s) for 1 or 2 channels are required to achieve a 6.1-channel system (DTS-ES, etc.). Adding these speakers, however, increases the surround effect not only with sources recorded in 6.1 channels but also with conventional 2- to 5.1-channel sources. All the Denon original surround modes (see page 48) are compatible with 7.1-channel playback, so you can enjoy 6.1-channel sound with any signal source.

■ Number of surround back speakers

Though the surround back channel only consists of 1 channel of playback signals for 6.1-channel sources (DTS-ES, etc.), we recommend using two speakers. When using speakers with dipolar characteristics in particular, it is essential to use two speakers.
Using two speakers results in a smoother blend with the sound of the surround channels and better sound positioning of the surround back channel when listening from a position other than the center.

■ Placement of the surround left and right channels when using surround back speakers

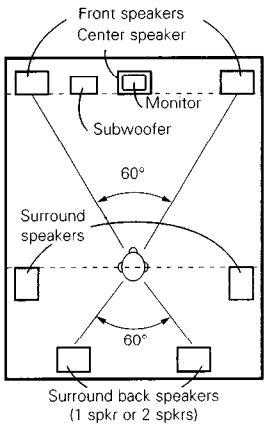
Using surround back speakers greatly improves the positioning of the sound at the rear. Because of this, the surround left and right channels play an important role in achieving a smooth transition of the acoustic image from the front to the back. As shown on the diagram above, in a movie theater the surround signals are also produced from diagonally in front of the listeners, creating an acoustic image as if the sound were floating in space.
To achieve these effects, we recommend placing the speakers for the surround left and right channels slightly more towards the front than with conventional surround systems. Doing so sometimes increases the surround effect when playing conventional 5.1-channel sources in the 6.1 surround or DTS-ES Matrix 6.1 mode. Check the surround effects of the various modes before selecting the surround mode.

Speaker setting examples

Here we describe a number of speaker settings for different purposes. Use these examples as guides to set up your system according to the type of speakers used and the main usage purpose.

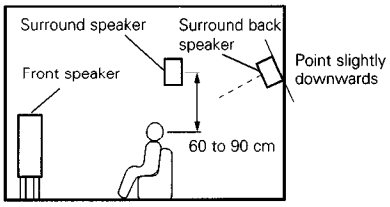
1. DTS-ES compatible system (using surround back speakers)

(1) Basic setting for primarily watching movies



As seen from above

- Set the front speakers with their front surfaces as flush with the TV or monitor screen as possible. Set the center speaker between the front left and right speakers and no further from the listening position than the front speakers.
- Consult the owner's manual for your subwoofer for advice on placing the subwoofer within the listening room.
- If the surround speakers are direct-radiating (monopolar) then place them slightly behind and at an angle to the listening position and parallel to the walls at a position 60 to 90 centimeters (2 to 3 feet) above ear level at the prime listening position.
- When using two surround back speakers, place them at the back facing the front at a narrower distance than the front left and right speakers. When using one surround back speaker, place it at the rear center facing the front at a slightly higher position (0 to 20 cm) than the surround speakers.
- We recommend installing the surround back speaker(s) at a slightly downward facing angle. This effectively prevents the surround back channel signals from reflecting off the monitor or screen at the front center, resulting in interference and making the sense of movement from the front to the back less sharp.

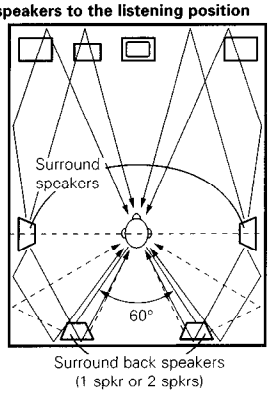


As seen from the side

(2) Setting for primarily watching movies using diffusion type speakers for the surround speakers

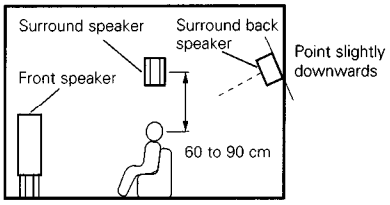
For the greatest sense of surround sound envelopment, diffuse radiation speakers such as bipolar types, or dipolar types, provide a wider dispersion than is possible to obtain from a direct radiating speaker (monopolar). Place these speakers at either side of the prime listening position, mounted above ear level.

Path of the surround sound from the speakers to the listening position



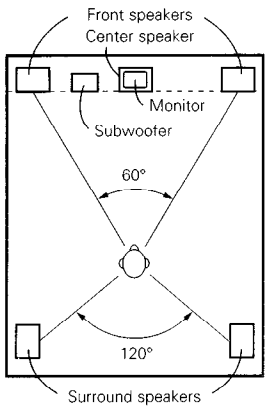
As seen from above

- Set the front speakers, center speaker and subwoofer in the same positions as in example (1).
- It is best to place the surround speakers directly at the side or slightly to the front of the viewing position, and 60 to 90 cm above the ears.
- Same as surround back speaker installation method (1).
  Using dipolar speakers for the surround back speakers as well is more effective.
- Connect the surround speakers to the surround speaker jacks.
- The signals from the surround channels reflect off the walls as shown on the diagram at the left, creating an enveloping and realistic surround sound presentation.
  For multi-channel music sources however, the use of bipolar or dipolar speakers mounted at the sides of the listening position may not be satisfactory in order to create a coherent 360 degree surround sound field. Connect another pair of direct radiating speakers as described in example (3) and place them at the rear corners of the room facing towards the prime listening position.



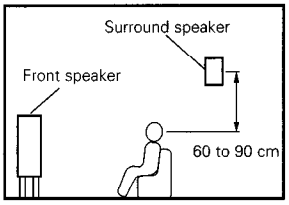
As seen from the side

2. When not using surround back speakers



As seen from above

- Set the front speakers with their front surfaces as flush with the TV or monitor screen as possible. Set the center speaker between the front left and right speakers and no further from the listening position than the front speakers.
- Consult the owner's manual for your subwoofer for advice on placing the subwoofer within the listening room.
- If the surround speakers are direct-radiating (monopolar) then place them slightly behind and at an angle to the listening position and parallel to the walls at a position 60 to 90 centimeters (2 to 3 feet) above ear level at the prime listening position.



As seen from the side

Surround

The AVR-1803/883 is equipped with a digital signal processing circuit that lets you play program sources in the surround mode to achieve the same sense of presence as in a movie theater.

Dolby Surround

(1) Dolby Digital

Dolby Digital is the multi-channel digital signal format developed by Dolby Laboratories.
Dolby Digital consists of up to "5.1" channels - front left, front right, center, surround left, surround right, and an additional channel exclusively reserved for additional deep bass sound effects (the Low Frequency Effects – LFE – channel, also called the ".1" channel, containing bass frequencies of up to 120 Hz).
Unlike the analog Dolby Pro Logic format, Dolby Digital's main channels can all contain full range sound information, from the lowest bass, up to the highest frequencies – 22 kHz. The signals within each channel are distinct from the others, allowing pinpoint sound imaging, and Dolby Digital offers tremendous dynamic range from the most powerful sound effects to the quietest, softest sounds, free from noise and distortion.

■ Dolby Digital and Dolby Pro Logic

Comparison of home surround systems	Dolby Digital	Dolby Pro Logic
No. recorded channels (elements)	5 1 ch	2 ch
No. playback channels	5.1 ch	4 ch
Playback channels (max.)	L, R, C, SL, SR, SW	L, R, C, S (SW - recommended)
Audio processing	Digital discrete processing Dolby Digital encoding/decoding	Analog matrix processing Dolby Surround
High frequency playback limit of surround channel	20 kHz	7 kHz

■ Dolby Digital compatible media and playback methods

Marks indicating Dolby Digital compatibility: DOLBY DIGITAL.

The following are general examples. Also refer to the player's operating instructions.

Media	Dolby Digital output jacks	Playback method (reference page)
LD (VDP)	Coaxial Dolby Digital RF output jack ※1	Set the input mode to "AUTO" (Page 33)
DVD	Optical or coaxial digital output (same as for PCM) ※2	Set the input mode to "AUTO" (Page 33)
Others (satellite broadcasts, CATV, etc.)	Optical or coaxial digital output (same as for PCM)	Set the input mode to "AUTO". (Page 33)

※1 Please use a commercially available adapter when connecting the Dolby Digital RF output jack of the LD player to the digital input jack. Please refer to the instruction manual of the adapter when making connection.

※2 Some DVD digital outputs have the function of switching the Dolby Digital signal output method between "bit stream" and "(convert to) PCM". When playing in Dolby Digital surround on the AVR-1803/883, switch the DVD player's output mode to "bit stream". In some cases players are equipped with both "bit stream + PCM" and "PCM only" digital outputs. In this case connect the "bit stream + PCM" jacks to the AVR-1803/883.

(2) Dolby Pro Logic II

- Dolby Pro-Logic II is a new multi-channel playback format developed by Dolby Laboratories using feedback logic steering technology and offering improvements over conventional Dolby Pro Logic circuits.
- Dolby Pro Logic II can be used to decode not only sources recorded in Dolby Surround (※) but also regular stereo sources into five channels (front left, front right, center, surround left and surround right) to achieve surround sound.
- Whereas with conventional Dolby Pro Logic the surround channel playback frequency band was limited, Dolby Pro Logic II offers a wider band range (20 Hz to 20 kHz or greater). In addition, the surround channels were monaural (the surround left and right channels were the same) with previous Dolby Pro Logic, but Dolby Pro Logic II they are played as stereo signals.
- Various parameters can be set according to the type of source and the contents, so it is possible to achieve optimum decoding (see page 42).

※ Sources recorded in Dolby Surround
These are sources in which three or more channels of surround have been recorded as two channels of signals using Dolby Surround encoding technology.
Dolby Surround is used for the sound tracks of movies recorded on DVDs, LDs and video cassettes to be played on stereo VCRs, as well as for the stereo broadcast signals of FM radio, TV, satellite broadcasts and cable TV.
Decoding these signals with Dolby Pro Logic makes it possible to achieve multi-channel surround playback. The signals can also be played on ordinary stereo equipment, in which case they provide normal stereo sound.

There are two types of DVD Dolby surround recording signals.
① 2-channel PCM stereo signals
② 2-channel Dolby Digital signals

When either of these signals is input to the AVR-1803/883, the surround mode is automatically set to Dolby Pro Logic II when the "DOLBY/DTS SURROUND" mode is selected.

■ **Sources recorded in Dolby Surround are indicated with the logo mark shown below.**
Dolby Surround support mark: DOLBY SURROUND

Manufactured under license from Dolby Laboratories.
"Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

DTS Digital Surround

Digital Theater Surround (also called simply DTS) is a multi-channel digital signal format developed by Digital Theater Systems.
DTS offers the same "5.1" playback channels as Dolby Digital (front left, front right and center, surround left and surround right) as well as the stereo 2-channel mode. The signals for the different channels are fully independent, eliminating the risk of deterioration of sound quality due to interference between signals, crosstalk, etc.
DTS features a relatively higher bit rate as compared to Dolby Digital (1234 kbps for CDs and LDs, 1536 kbps for DVDs) so it operates with a relatively low compression rate. Because of this the amount of data is great, and when DTS playback is used in movie theaters, a separate CD-ROM synchronized with the film is played.
With LDs and DVDs, there is of course no need for an extra disc; the pictures and sound can be recorded simultaneously on the same disc, so the discs can be handled in the same way as discs with other formats.
There are also music CDs recorded in DTS. These CDs include 5.1-channel surround signals (compared to two channels on current CDs). They do not include picture data, but they offer surround playback on CD players that are equipped with digital outputs (PCM type digital output required). DTS surround track playback offers the same intricate, grand sound as in a movie theater, right in your own listening room.

■ **DTS compatible media and playback methods**

Marks indicating DTS compatibility: DIGITAL dts SURROUND and dts .

The following are general examples. Also refer to the player's operating instructions.

Media	Dolby Digital output jacks	Playback method (reference page)
CD	Optical or coaxial digital output (same as for PCM) ※2	Set the input mode to "AUTO" or "DTS" (page 33). Never set the mode to "ANALOG" or "PCM". ※1
LD (VDP)	Optical or coaxial digital output (same as for PCM) ※2	Set the input mode to "AUTO" or "DTS" (page 33). Never set the mode to "ANALOG" or "PCM". ※1
DVD	Optical or coaxial digital output (same as for PCM) ※3	Set the input mode to "AUTO" or "DTS" (page 33).

※1 DTS signals are recorded in the same way on CDs and LDs as PCM signals. Because of this, the un-decoded DTS signals are output as random "hissy" noise from the CD or LD player's analog outputs. If this noise is played with the amplifier set at a very high volume, it may possibly cause damage to the speakers. To avoid this, be sure to switch the input mode to "AUTO" or "DTS" before playing CDs or LDs recorded in DTS. Also, never switch the input mode to "ANALOG" or "PCM" during playback. The same holds true when playing CDs or LDs on a DVD player or LD/DVD compatible player. For DVDs, the DTS signals are recorded in a special way so this problem does not occur.
※2 The signals provided at the digital outputs of a CD or LD player may undergo some sort of internal signal processing (output level adjustment, sampling frequency conversion, etc.). In this case the DTS-encoded signals may be processed erroneously, in which case they cannot be decoded by the AVR-1803/883, or may only produce noise. Before playing DTS signals for the first time, turn down the master volume to a low level, start playing the DTS disc, then check whether the DTS indicator on the AVR-1803/883 (see page 45) lights before turning up the master volume.
※3 A DVD player with DTS-compatible digital output is required to play DTS DVDs. A DTS Digital Output logo is featured on the front panel of compatible DVD players. Recent DENON DVD player models feature DTS-compatible digital output – consult the player's owner's manual for information on configuring the digital output for DTS playback of DTS-encoded DVDs.

Manufactured under license from Digital Theater Systems, Inc. US Pat. No. 5,451,942, 5,956,674, 5,974,380, 5,978,762 and other world-wide patents issued and pending.
"DTS","DTS-ES Extended Surround" and "Neo:6" are trademarks of Digital Theater Systems, Inc. ©1996, 2000 Digital Theater Systems, Inc. All Rights Reserved.

DTS-ES Extended Surround ™

DTS-ES Extended Surround is a new multi-channel digital signal format developed by Digital Theater Systems Inc. While offering high compatibility with the conventional DTS Digital Surround format, DTS-ES Extended Surround greatly improves the 360-degree surround impression and space expression thanks to further expanded surround signals. This format has been used professionally in movie theaters since 1999.
In addition to the 5.1 surround channels (FL, FR, C, SL, SR and LFE), DTS-ES Extended Surround also offers the SB (Surround Back, sometimes also referred to as "surround center") channel for surround playback with a total of 6.1 channels. DTS-ES Extended Surround includes two signal formats with different surround signal recording methods, as described below.

■ DTS-ES™ Discrete 6.1

DTS-ES Discrete 6.1 is the newest recording format. With it, all 6.1 channels (including the SB channel) are recorded independently using a digital discrete system. The main feature of this format is that because the SL, SR and SB channels are fully independent, the sound can be designed with total freedom and it is possible to achieve a sense that the acoustic images are moving about freely among the background sounds surrounding the listener from 360 degrees.
Though maximum performance is achieved when sound tracks recorded with this system are played using a DTS-ES decoder, when played with a conventional DTS decoder the SB channel signals are automatically down-mixed to the SL and SR channels, so none of the signal components are lost.

■ DTS-ES™ Matrix 6.1

With this format, the additional SB channel signals undergo matrix encoding and are input to the SL and SR channels beforehand. Upon playback they are decoded to the SL, SR and SB channels. The performance of the encoder used at the time of recording can be fully matched using a high precision digital matrix decoder developed by DTS, thereby achieving surround sound more faithful to the producer's sound design aims than with conventional 5.1- or 6.1-channel systems.
In addition, the bit stream format is 100% compatible with conventional DTS signals, so the effect of the Matrix 6.1 format can be achieved even with 5.1-channel signal sources. Of course it is also possible to play DTS-ES Matrix 6.1 encoded sources with a DTS 5.1-channel decoder.

When DTS-ES Discrete 6.1 or Matrix 6.1 encoded sources are decoded with a DTS-ES decoder, the format is automatically detected upon decoding and the optimum playing mode is selected. However, some Matrix 6.1 sources may be detected as having a 5.1-channel format, so the DTS-ES Matrix 6.1 mode must be set manually to play these sources.
(For instructions on selecting the surround mode, see page 45.)

The DTS-ES decoder includes another function, the DTS Neo:6 surround mode for 6.1-channel playback of digital PCM and analog signal sources.

■ DTS Neo:6™ surround

This mode applies conventional 2-channel signals to the high precision digital matrix decoder used for DTS-ES Matrix 6.1 to achieve 6.1-channel surround playback. High precision input signal detection and matrix processing enable full band reproduction (frequency response of 20 Hz to 20 kHz or greater) for all 6.1 channels, and separation between the different channels is improved to the same level as that of a digital discrete system.
DTS Neo:6 surround includes two modes for selecting the optimum decoding for the signal source.

- **DTS Neo:6 Cinema**
  This mode is optimum for playing movies. Decoding is performed with emphasis on separation performance to achieve the same atmosphere with 2-channel sources as with 6.1-channel sources.
  This mode is effective for playing sources recorded in conventional surround formats as well, because the in-phase component is assigned mainly to the center channel (C) and the reversed phase component to the surround (SL, SR and SB channels).
- **DTS Neo:6 Music**
  This mode is suited mainly for playing music. The front channel (FL and FR) signals bypass the decoder and are played directly so there is no loss of sound quality, and the effect of the surround signals output from the center (C) and surround (SL, SR and SB) channels add a natural sense of expansion to the sound field.

20 TROUBLESHOOTING

If a problem should arise,first check the following.
1. Are the connections correct ?
2. Have you operated the receiver according to the Operating Instructions ?
3. Are the speakers, turntable and other components operating property ?

If this unit is not operating properly, check the items listed in the table below. Should the problem persist, there may be a malfunction. Disconnect the power immediately and contact your store of purchase.

	Symptom	Cause	Measures	Page
Common problems when listening to the CD, records, tapes and FM broadcasts, etc.	DISPLAY not lit and sound not produced when power switch set to on.	• Power cord not plugged in securely.	• Check the insertion of the power cord plug. • Turn the power on with the remote control unit after turning the POWER switch on.	9 32
	DISPLAY lit but sound not produced.	• Speaker cords not securely connected. • Improper position of the audio function button. • Volume control set to minimum. • MUTING is on. • Digital signals not input Digital input selected.	• Connect securely. • Set to a suitable position. • Turn volume up to suitable level. • Switch off MUTING. • Input digital signals or select input jacks to which digital signals are being input.	16, 17 33 34 36 33
	DISPLAY not lit and power indicator is flashing rapidly.	• Speaker terminals are short-circuited. • Block the ventilation holes of the set. • The unit is operating at continuous high power conditions and/or inadequate ventilation.	• Switch power off, connect speakers properly, then switch power back on. • Turn off the set's power, then ventilate it well to cool it down. Once the set is cooled down, turn the power back on. • Turn off the set's power, then ventilate it well to cool it down. Once the set is cooled down, turn the power back on.	16, 17 9, 16 9, 16
	Sound produced only from one channel.	• Incomplete connection of speaker cords. • Incomplete connection of input/output cords.	• Connect securely. • Connect securely.	16, 17 9 ~ 17
	Positions of instruments reversed during stereo playback	• Reverse connections of left and right speakers or left and right input/output cords.	• Check left and right connections.	17
When playing records	Humming noise produced when record is playing.	• Ground wire of turntable not connected properly. • Incomplete PHONO jack connection. • TV or radio transmission antenna nearby.	• Connect securely. • Connect securely. • Contact your store of purchase.	9 9 —
	Howling noise produced when volume is high.	• Turntable and speaker systems too close together. • Floor is unstable and vibrates easily.	• Separate as much as possible. • Use cushions to absorb speaker vibrations transmitted by floor. If turntable is not equipped with insulators, use audio insulators (commonly available).	— —
	Sound is distorted.	• Stylus pressure too weak. • Dust or dirt on stylus. • Cartridge defective.	• Apply proper stylus pressure. • Check stylus. • Replace cartridge.	— — —
	Volume is weak.	• MC cartridge being used.	• Replace with MM cartridge or use a head amplifier or step-up transformer.	9
Remote control unit	This unit does not operate properly when remote control unit is used.	• Batteries dead. • Remote control unit too far from this unit. • Obstacle between this unit and remote control unit. • Different button is being pressed. • ⊕ and ⊖ ends of battery inserted in reverse.	• Replace with new batteries. • Move closer. • Remove obstacle. • Press the proper button. • Insert batteries properly.	18 18 18 — 18

21 SPECIFICATIONS

■ Audio section

• Power amplifier

Rated output:	Front:	80 W + 80 W	(8 Ω/ohms, 20 Hz ~ 20 kHz with 0.08% T.H.D.)
		110 W + 110 W	(6 Ω/ohms, 1 kHz with 0.7% T.H.D.)
	Center:	80 W	(8 Ω/ohms, 20 Hz ~ 20 kHz with 0.08% T.H.D.)
		110 W	(6 Ω/ohms, 1 kHz with 0.7% T.H.D.)
	Surround:	80 W + 80 W	(8 Ω/ohms, 20 Hz ~ 20 kHz with 0.08% T.H.D.)
		110 W + 110 W	(6 Ω/ohms, 1 kHz with 0.7% T.H.D.)
	Surround Back:	80 W	(8 Ω/ohms, 20 Hz ~ 20 kHz with 0.08% T.H.D.)
		110 W	(6 Ω/ohms, 1 kHz with 0.7% T.H.D.)
Dynamic power:	100 W x 2 ch	(8 Ω/ohms)	
	145 W x 2 ch	(4 Ω/ohms)	
	170 W x 2 ch	(2 Ω/ohms)	
Output terminals:	Front, Center, Surround:		6 ~ 16 Ω/ohms
	Surr. Back:	A or B	6 ~ 16 Ω/ohms
		A + B	12 ~ 16 Ω/ohms

• Analog

Input sensitivity / input impedance:	200 mV / 47 kΩ/kohms
Frequency response:	10 Hz ~ 100 kHz: +1, –3 dB (DIRECT mode)
S/N:	100 dB (IHF-A weighted) (DIRECT mode)
Distortion:	0.008% (20 Hz ~ 20 kHz) (DIRECT mode)
Rated output:	1.2 V

• Phono equalizer (PHONO input — REC OUT)

Input sensitivity:	2.5 mV
RIAA deviation:	±1 dB (20 Hz to 20 kHz)
Signal-to-noise ratio:	74 dB (A weighting, with 5 mV input)
Rated output / Maximum output:	150 mV / 7 V
Distortion factor:	0.03% (1 kHz, 3 V)

■ Video section

• Standard video jacks

Input / output level and impedance:	1 Vp-p, 75 Ω/ohms
Frequency response:	5 Hz ~ 10 MHz — +1, –3 dB

• S-video jacks

Input / output level and impedance:	Y (brightness) signal — 1 Vp-p, 75 Ω/ohms C (color) signal — 0.286 Vp-p, 75 Ω/ohms
Frequency response:	5 Hz ~ 10 MHz — +1, –3 dB

• Color component video jacks

Input / output level and impedance:	Y (brightness) signal — 1 Vp-p, 75 Ω/ohms PB/CB (blue) signal — 0.7 Vp-p, 75 Ω/ohms PR/CR (red) signal — 0.7Vp-p, 75 Ω/ohms
Frequency response:	5 Hz ~ 27 MHz — +1, –3 dB

■ Tuner section

	[FM] (note: μV at 75 Ω/ohms, 0 dBf=1 x 10^{-15} W)		**[AM]**
Receiving Range:	87.50 MHz ~ 107.90 MHz		520 kHz ~ 1710 kHz
Usable Sensitivity:	1.0 μV (11.2 dBf)		18 μV
50 dB Quieting Sensitivity:	MONO	1.6 μV (15.3 dBf)	
	STEREO	23 μV (38.5 dBf)	
S/N (IHF-A):	MONO	80 dB (IHF-A weighted)	
	STEREO	75 dB (IHF-A weighted)	
Total Harmonic Distortion (at 1 kHz):	MONO	0.15% (1kHz)	
	STEREO	0.3% (1kHz)	

■ General

Power supply:	AC 120 V, 60 Hz
Power consumption:	4.5 A 1 W Max. (Standby)
Maximum external dimensions:	434 (W) x 171 (H) x 417 (D) mm (17-3/32" x 6-47/64" x 16-27/64")
Weight:	11.7 kg (25 lbs 6 oz)

■ Remote control unit (RC-916)

Batteries:	R6P/AA Type (three batteries)
External dimensions:	55 (W) x 225 (H) x 34.5 (D) mm (2-11/64" x 8-55/64" x 1-9/64")
Weight:	165 g (Approx. 5.8 oz) (including batteries)

* For purposes of improvement, specifications and design are subject to change without notice.

DENON SERVICE NETWORK/ 服務網絡

- **Please contact one of our overseas service centers, listed below, for follow-up service consultation.**
- **Wenden Sie sich für anfallende Wartungs-bzw. Reparaturarbeiten bitte an eine der folgend aufgeführten Kundendienststellen.**
- **Adressez-vous à nos centres de service d'outre-mer indiqués ci-dessous, pour le service aprèsvente.**
- **Per il servizio dopo vendita rivolgete Vi al nostro centro di servizio estero appropriato della lista seguente.**
- **Para consultas de servicio porfavor dírigirse a cualquiera de nuestros centros de servicio en el extranjero, enlistados abajo.**
- **Neem kontakt op met één van onze reparatie-inrichtingen in het buitenland, waarvan hier een lijst volgt, voor na-service.**
- **Ta kontakt med nedan angivna servicecentraler för rådfrågning om servicearbeten efter försäljningen.**
- **Favor contactar um de nossos centros de serviços internacionais, abaixo listados, para consulta de serviços de acompanhamento.**
- **請據下表所列本公司海外服務中心查詢售后服務事宜。**

Australia	Audio Products Australia Pty Ltd. 67 O'Riordan Street, Alexandria NSW 2015, Australia Tel: (02) 9669-3477 Fax: (02) 9578-0140
Austria	Digital-Professional-Audio Vertriebsges.m.b.H., 1170 Wien, Rupertusplatz 3 Tel: 0222-4501006~9, Fax: 0222-457679
Belgium	Transtel-Sabima P.V.B.A. Harmoniestraat 13, 2018 Antwerpen 1, België Tel: 03-237-3607
Canada	Denon Canada Inc. 17 Denison Street, Markham Ontario, Canada L3R 1B5 Tel: 905-475-4085 Fax: 905-475-4159
China	中國遠望機電技術發展中心（北京天龍特約維修中心）北京，東城區，建國門內東總布胡同28號 郵編：100005 電話：（010）64064558 傳真：（010）64015151 天龍音響上海特約技術維修服務中心 上海金沙江路253號 郵編：200062 電話： 86-21-6257-9958 傳真： 86-21-6260-5645
Czecho	EUROSTAR OSTORAVA s.r.o. areal Vodni stavby Praha a.s., budova A2 Dobronicka 635,148 00 Praha 4 Czech Rep. Tel: 02-6111-2901 Fax: 02-6111-2904
Denmark	Hifi Klubben A/S Dali Alle 1, 9610 Noerager, Denmark Tel: 45-96 72 10 00 Fax: 45-96 72 10 14
Finland	Suomen Hi-Fi Klubi OY Nylandsgatan 4-6, Helsingfors Tel: 09 25 30 36 12
France	Denon France S.A. 3 Boulevard Ney, 75018 Paris Tel: 44-89-68-69
F.R. Germany	Denon Electronic GmbH An der Landwehr 19, 41334 Nettetal Tel: +49 2157 12 08 78 Fax: +49 2157 12 08 13
Greece	KINOTECHNIKI LTD. 14, PYRGOU STR. 166 75, GLYFADA ATHENS Tel: (01)960-1071 Fax: (01)960-1072
Hong Kong	DENON ASIA COMPANY LTD. Suite 501, Ocean Centre, Harbour City, Canton Road, Tsimshatsui Kowloon, Hong Kong Tel: 852-2516-6862, Fax: 852-2516-5940 天龍音響(亞洲)有限公司 香港九龍尖沙咀廣東道海港城海洋中心5樓501室 電話：852-2516-6862 傳真：852-2516-5940
Hungary	InfoVox Ltd. Terez krt. 31, 1067 Budapest Hungary Tel / Fax: 01-302-2515
Iceland	Japis Ltd. Brautarholt 2, P.O.Box 396, 121 Reykjavik, Iceland Tel: 354-58009-800 Fax: 354-5800-888
Israel	Newpan Ltd. 14 Rosansky st. Rishon Lezion 75706. Tel: 03-9535900 Fax: 03-9616193
Indonesia	PT Autoaccindo Jaya. Cideng Barat No. 7 Jakarta, Indonesia Tel: 633 2730
Italy	Audiodelta S.r.l.19 Via Pietro Calvi 20129 Milan Italy Tel: 39-02-5411-6008 / 39-02-5412-8253 Fax: 39-02-5518-1961
Korea	SAM WON KOREA Co., Ltd. 1F, SANG-ROCK BLDG, #1629-3 SEOCHO-DONG, SEOCHO-KU, SEOUL 137-070, KOREA Tel: 02-521-1404 Fax: 02-3486-2135
Malaysia	HWEE SENG (ELECTRONICS) SDN BHD. 13-1, Jalan Raja Laut, 50350 Kuala Lumpur Malaysia Tel: 60-3-4041-8422 Fax: 60-3-4041-0563
Mexico	Labrador, S.A. de C.V. Callejon del Naranjo 35, Naucalpan, 53560, Edo. Mex., Mexico Tel: 52-5359-5161 Fax: 52-5357-1775
Netherlands	Penhold B.V. Poppenbouwing 58, NL-4191 NZ Geldermalsen, Netherland Tel: 31-345-588 080 Fax: 31-345-588 085
New Zealand	Avalon Audio Corpn. Limited 630B Great South Road Ellerslie Auckland, New Zealand Tel: 64-9-579-1280 Fax: 64-9-579-3350
Norway	Hi-Fi Klubben AS Sandakerveien 64 0483 Oslo Tel: 47 22 79 66 66 Fax: 47 22 79 66 67
Poland	HORN DISTRIBUTION S.A. Ulica Kurantow 34, 02-873 Warszawa Poland Tel: +48 22 649 30 71 Fax: +48 22 649 31 99
Portugal	Videoacustica Qta. Do Paizinho-Armazém 5-Estrada De Circunvalação-Apart. 3127 1303 Lisboa Codex Tel: (01)417-00-04/00-96 Fax: (01)418-80-93
Singapore	Hwee Seng (Electronics) Pte Ltd. 81 Genting Lane #02-02, Everich Industrial Building Singapore 349566 Tel: 65-746-3355 Fax: 65-743-1704
South Africa	Mandarin Distributors S.A. 10 Thora Crescent, Wynberg Ext.3 Sandton, P.O.Box 5137, Johannesburg Republic of South Africa Tel: 27-11-444-8445 Fax: 27-11-444-8363
Spain	Gaplasa S.A.AV. Ing. Conde de Torroja, 25, 28022 Madrid Tel: 91-329-29-60 Fax: 91-329-16-75
Sweden	Sveriges Hi-Fi Klubb Box 5116, S-402 23 Göteborg Tel: 031 33 51000
Switzerland	KOENIG APPARATE AG, Abteilung Elektronik. Eggbühlstrasse 28, CH-8052 Zürich, Switzerland Tel: 01-306-1626 Fax: 01-306-1690
Taiwan R.O.C.	KOLIN-DENON ENTERTAINEMENTY INC. 5th FL.,NO.63, Po-Ai Road, Taipei, Taiwan, R.O C. Tel: (02)2381-5876 Fax: (02)2381-5811
進口廠商	歌林天龍音樂事業股份有限公司 台北市博愛市路63號10樓 電話：(02)2381-5876 傳真：(02)2381-5811
Thailand	Mahajak Development Co., Ltd. 46 Mahajak Building, Sukhumvit Soi 3 (Nana-Nua) Klongtoey, Bangkok Thailand. 10110 Tel: 66-2-256-0020 Fax: 66-2-253-1696
United Kingdom & Eire	Hayden Laboratories Ltd. Hayden House, Chiltern Hill, Chalfont St Peter, Gerrards Cross, Bucks, SL9 9UG Tel: 01753-888447 Fax: 01753-880109
U.S.A.	DENON ELECTRONICS, a Division of Denon Corporation (U.S.A.) 19 Chapin Road, Pine Brook, NJ 07058-9777 Tel: 973-396-7499, Fax: 888-544-8434

* If there is no service center in your local area, consult the outlet where the equipment was purchased.
* Falls sich in Ihrer Nähe keine Kundendienststelle befindet, wenden Sie sich an das Geschäft, wo das Gerät gekauft wurde
* S'il n'y a aucun centre de service dans votre région, consultez votre revendeur.
* Se nella Vostra zona non c'è il centro di servizio, rivolgete Vi al negozio dove avete acquistato l'apparecchio.
* Si no hay centros de servicio en su área local, consulte en donde haya comprado su equipo
* Als er in uw streek geen reparatie-inrichting is, neemt u kontakt op met de vestiging waar u de apparatuur gekocht heeft.
* Saknas servicecentral i närheten där du bor, bör kontakt tas medåterförsäljaren för apparaten
* Se não existir um centro de serviços em sua área local, consulte o estabelecimento onde o equipamento foi adquirido
* 若當地無服務中心，可向你購入本機的商號查詢。

H11001

DENON, Ltd.

13-16-11, YUSHIMA, BUNKYO-KU, TOKYO 113-0034, JAPAN

Telephone: (813) 3837 5321 Fax. (813) 3837 7804

This warranty will be honored only in the U.S.A.

DENON®
LIMITED WARRANTY

Length of Warranty

This warranty on your DENON audio product which is distributed and warranted by DENON ELECTRONICS, a Division of DENON Corporation (U.S.A.) remains in effect for the following periods from the date of the original consumer purchase from an AUTHORIZED DENON ELECTRONICS, a Division of DENON Corporation (U.S.A.) DEALER.

Product Category			
Turntables	*(1) Autolift*	*(DP-L)*	*4 years*
	(2) Full Automatic	*(DP-F)*	*2 years*
Tuners, Integrated Amplifiers		*(TU, PMA)*	*3 years*
Preamps, Digital Preamps, Poweramps, Head Amplifiers		*(PRA, AVP, DAP, POA, HA)*	*3 years*
Digital Surround Decoder		*(AVD)*	*3 years*
A/V Controllers, A/V Receivers, AM/FM Receivers		*(AVC, AVR, DRA)*	*2 years*
Compact Disc Players, DVD Players		*(DCD, DCM, DP, DA, DVD, DVM)*	*1 year*
Tape Recorders, Compact Disc Recorders, Minidisc Recorders		*(DRM, DRR, DRS, DRW, CDR, DMD)*	*1 year*
Karaoke Systems		*(DCG, HMA)*	*1 year*
Cartridges, Accessories		*(DL, AU)*	*90 days*

What is Covered

Except as specified below, this Warranty covers all defects in material and workmanship in this product. The following are not covered by the Warranty: (1) Any product which is not distributed in the U.S.A. by DENON ELECTRONICS (2) Any product which is not purchased in the U.S.A. from an authorized DENON dealer, unless the product is purchased through the U.S.A. Military Exchange Service where the Warranty will be One (1) year for all products listed above except in the case of Cartridges which will remain at 90 days. (Note: AUTHORIZED DENON DEALERS can be identified by DENON AUTHORIZED DEALER sticker displayed in the stores. If you are uncertain as to whether a dealer is a DENON AUTHORIZED DEALER, please contact DENON as listed below.) (3) Any product on which the serial number has been defaced, modified or removed. (4) Damaged deterioration or malfunction resulting from: a) Accident, act of nature, abuse, misuse, neglect, unauthorized product repair or modification or failure to follow instructions supplied with the product. b) Repair or attempted repair by anyone not authorized by DENON. c) Any shipment of the product (claim must be presented to carrier). (5) Items subject to wear from normal usage (tape heads, cartridges, stylus, battery, etc.). (6) Periodic check-ups which do not disclose any defect. (7) Use of the product outside the U.S.A. (8) Damaged magnetic tape or CD discs. (9) Use in industrial, commercial, and/or professional applications. (10) Any installation or removal charges resulting from product failure.

What We Will Pay For

If during the applicable warranty period from date of original consumer purchase your DENON audio product is found to be defective by DENON, DENON will repair, or at its option, replace with new, used or equivalent model, such defective product without charge for parts or labor.

How to Obtain Warranty Performance

If your unit ever needs service, it may be taken or shipped to any authorized DENON service station or DENON ELECTRONICS (if you are uncertain as to whether a service station is DENON authorized, please contact DENON as listed below.). In all other cases, the following procedures apply whenever your unit must be transported for warranty service:

a. You are responsible for transporting your unit or arranging for its transportation.

b. If shipment of your unit is required;
You must pay the initial shipping charges, but we will pay the return shipping charges if the repairs are covered by the Warranty.

c. **WHEN RETURNING YOUR UNIT FOR WARRANTY SERVICE, A COPY OF THE ORIGINAL SALES SLIP MUST BE ATTACHED.**

d. You should include the following: your name, address, daytime telephone number, model and serial number of the product and a description of the problem. In the case of a Compact Disc Player, please enclose ONE (1) disc that the unit has failed with for test reasons. It will be returned with the unit.

THIS WARRANTY IS VALID IN THE U.S.A. ONLY.

If your product does not require service, but you have questions regarding its operation, please contact our Technical Services Department as listed below.

THIS WARRANTY IS EXPRESSLY MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

OUR LIABILITY IS LIMITED TO THE REPAIR OR REPLACEMENT, AT OUR OPTION, OF ANY DEFECTIVE PRODUCT AND SHALL IN NO EVENT INCLUDE INCIDENTAL OR CONSEQUENTIAL COMMERCIAL OR PROPERTY DAMAGES OF ANY KIND.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS AND EXCLUSIONS MAY NOT APPLY TO YOU.

This Warranty gives you specific legal rights, but you may also have other rights which vary from state to state.

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DENON® ELECTRONICS,
a Division of DENON Corporation (U.S.A.)

Mailing address only: DENON ELECTRONICS,
P.O. Box 5370
Parsippany, N.J. 07054-5370

DENON

DENON ELECTRONICS,
222 New Road
Parsippany, N.J. 07054
(973) 396-7499
(888) 544-8434 FAX

DENON ELECTRONICS,
13825 Cerritos Corporate Dr., Suite B,
Cerritos, CA 90703-2456
(562) 565-1730
(562) 565-1740 FAX

DENON REGIONAL SUPER SERVICE CENTERS (Repair only — No parts orders please)

PYRAMID AUDIO
8711 Burnett Rd.
Building F, Suite 65
Austin, TX. 78758
(512) 458-8292
(512) 453 4542 FAX

UNITED RADIO
2949 Erie Boulevard East
Syracuse, N.Y. 13224
(315) 446-8700
(315) 446-8505 FAX

AUDIO SERVICES
544 Central Dr., Suite 101
Virginia Beach, VA 23454
(757) 498-8277
(757) 498-9554 FAX

ELECTRO SERVICES
2144 Columbia Avenue
Lancaster, PA 17603
(717) 397-0509
(717) 397-9565 FAX

INNER SOUND
1818 S.E. Division St.
Port land, OR 97202
(503) 238-1955
(503) 238-1787 FAX

DENON® WARRANTY REGISTRATION

MODEL NO.	SERIAL NO.	DATE SOLD

DEALER NAME _____

DEALER ADDRESS _____

DEALER TELEPHONE _____

_____
PURCHASER'S NAME

_____
STREET ADDRESS

_____
CITY STATE ZIP

_____
AREA CODE PHONE NO.

A) Who/What was the greatest influence in your final decision to purchase this product?

1. ☐ Advertising
2. ☐ Denon brand name
3. ☐ Product features
4. ☐ Friend/Relative
5. ☐ Price
6. ☐ Product brochure/literature
7. ☐ Salesperson
8. ☐ Other (specify :_____)

B) What other audio equipment do you presently own? Please indicate the make and model.

Turntable _____
Cartridge _____
Tonearm _____
Head Amp/Transf. _____
Amplifier _____
Integrated Amp _____
Tuner _____
Receiver _____
Cassette Deck _____
Reel-to-Reel _____
Speakers _____
Headphones _____
Blank Tape _____
Brand _____ Length _____
Accessories _____
Cleaners, _____
cables, _____
etc. _____

C) What equipment do you plan to purchase in the next 6 months?

Category _____

Price Level _____

D) Please list the periodicals (Magazines, newspapers, etc.) which you read regularly.

PLACE
STAMP
HERE

DENON® ELECTRONICS,
a Division of Denon Corporation (U.S.A.)
P.O. Box 5370
Parsippany, N.J. 07054

List of Preset Codes / Liste von voreingestellten Codes / Liste de codes préréglés / Lista dei codici pre-regolati / Lista de Códigos Pre-ajustados / Lijst van vooringestelde codes / Förteckning över förinställda koder

DVD

Denon	014, *[111]
Aiwa	009
Hitachi	010
JVC	006, 011
Konka	012, 013
Magnavox	005
Mitsubishi	004
Panasonic	014
Philips	005, 015, 016, 017
Pioneer	003, 008
Sanyo	018
Sony	002, 019, 020
Toshiba	001, 021, 022, 024
Zenith	023

VDP

Denon	028, 029, 112
Magnavox	026
Mitsubishi	028
Panasonic	029, 030
Philips	026
Pioneer	028, 031
RCA	032
Sony	033, 034, 035, 036

VCR

Admiral	081
Aiko	095
Aiwa	009
Akai	026, 027, 070, 072, 082, 083, 084
Amstrad	009
ASA	042
Asha	087
Audio Dynamic	005, 085
Audiovox	088
Beaumark	087
Broksonic	086, 093
Calix	088
Candle	006, 087, 088, 089, 090
Canon	049, 057
Capehart	025, 055, 056, 071
Carver	015
CCE	095
Citizen	006, 007, 087, 088, 089, 090, 095
Craig	007, 087, 088, 091, 115
Curtis Mathes	006, 049, 073, 080, 087, 090, 092
Cybernex	087
Daewoo	025, 055, 059, 074, 089, 093, 095, 096
Daytron	025, 055
DBX	005, 085
Dumont	053
Dynatech	009
Electrohome	001, 088, 097
Electrophonic	088
Emerson	001, 009, 017, 027, 086, 088, 089, 092, 093, 097, 100, 101, 102, 103, 104, 117
Fisher	009, 028, 031, 053, 054, 091, 098, 099, 111
GE	007, 011, 049, 050, 051, 052, 073, 080, 087
Go Video	047, 048
Goldstar	000, 006, 012, 062, 088
Gradiente	094
Grundig	042
Harley Davidson	094
Harman Kardon	040, 062
Hi-Q	091
Hitachi	009, 013, 023, 026, 058, *[108], 109, 110, 111
JC Penny	004, 005, 007, 023, 028, 049, 062, 085, 087, 088
Jensen	013, 026
JVC	004, 005, 006, 026, 029, 043, 044, 045, 046, 085
Kenwood	004, 005, 006, 026, 029, 033, 045, 085, 090
Kodak	088
Lloyd	009, 094
LXI	088
Magnavox	015, 016, 042, 049, 063, 106
Magnin	087
Marantz	004, 005, 006, 015, 042, 049, 085, 090
Marta	088
MEI	049
Memorex	009, 033, 049, 053, 060, 081, 087, 088, 091, 094, 115
MGA	001, 017, 027, 041, 097
MGN Technology	087
Midland	011
Minolta	013, 023
Mitsubishi	001, 003, 008, 013, 014, 017, 027, 029, 039, 040, 041, 045, 097
Motorola	081
Montgomery Ward	001, 002, 007, 009, 049, 063, 081, 115, 117
MTC	009, 087, 094
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*[ ] : Preset codes set upon shipment from the factory.

*[ ] : Sie Voreinstellungscodes wurden vor der Auslieferung werkseitig eingestellt

*[ ] : Les codes préréglés diffèrent en fonctiom des livraison de l'usine

*[ ] : I codici di presettaggio sono impostati in fabbrica prima della consegna.

*[ ] : Los códigos vienen preprogramados de fábrica

*[ ] : Vooringestelde codes bij hey verlaten van de fabriek

*[ ] : Förinställda koder har ställts in vid transporten från fabriken

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DENON Model No Modellnr Modéle numéro Modello No Nº de modelo Modelnr Modellnr	DVD-1000 DVD-1500 DVD-2800 DVD-2800II	DVD-800 DVD-1600 DVD-2000 DVD-2500 DVD-3000 DVD-3300